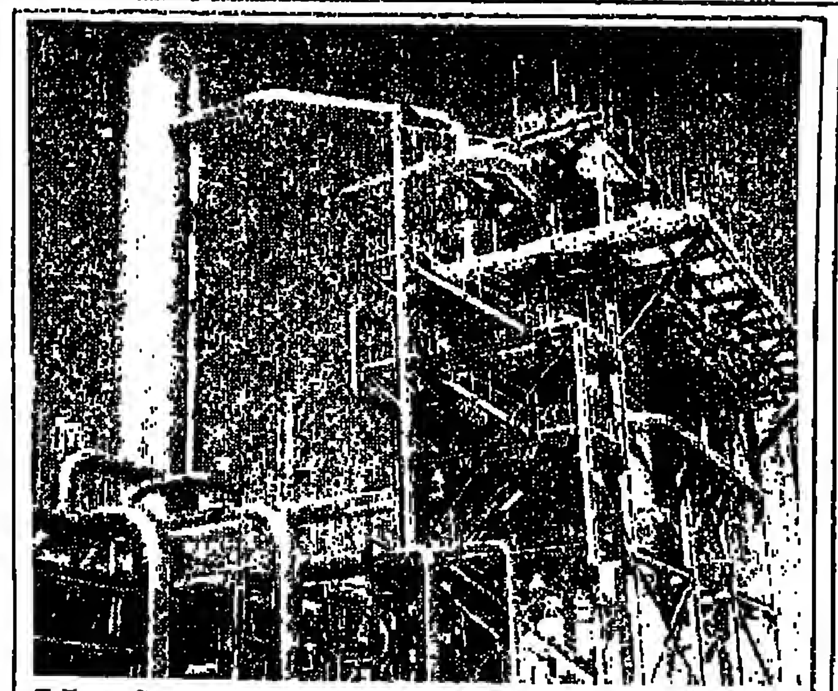
Chemical Marketing Reporter


Methanol Outlook 3

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Oct. 31, 1986	152.13
Oct. 17, 1986	151.25
Oct. 3, 1986	151.60
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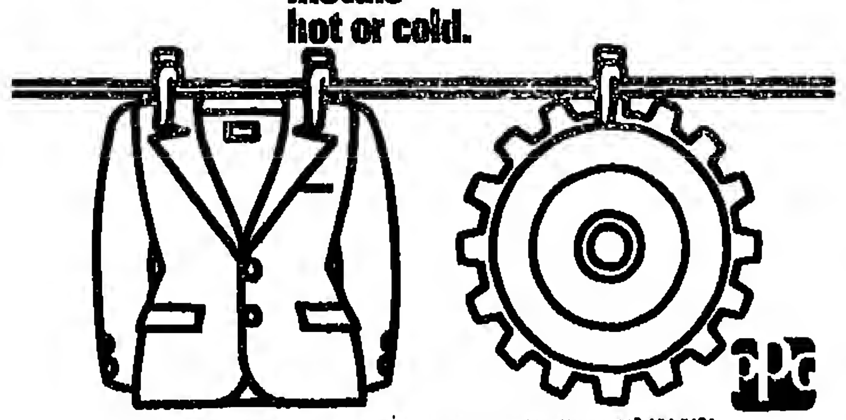

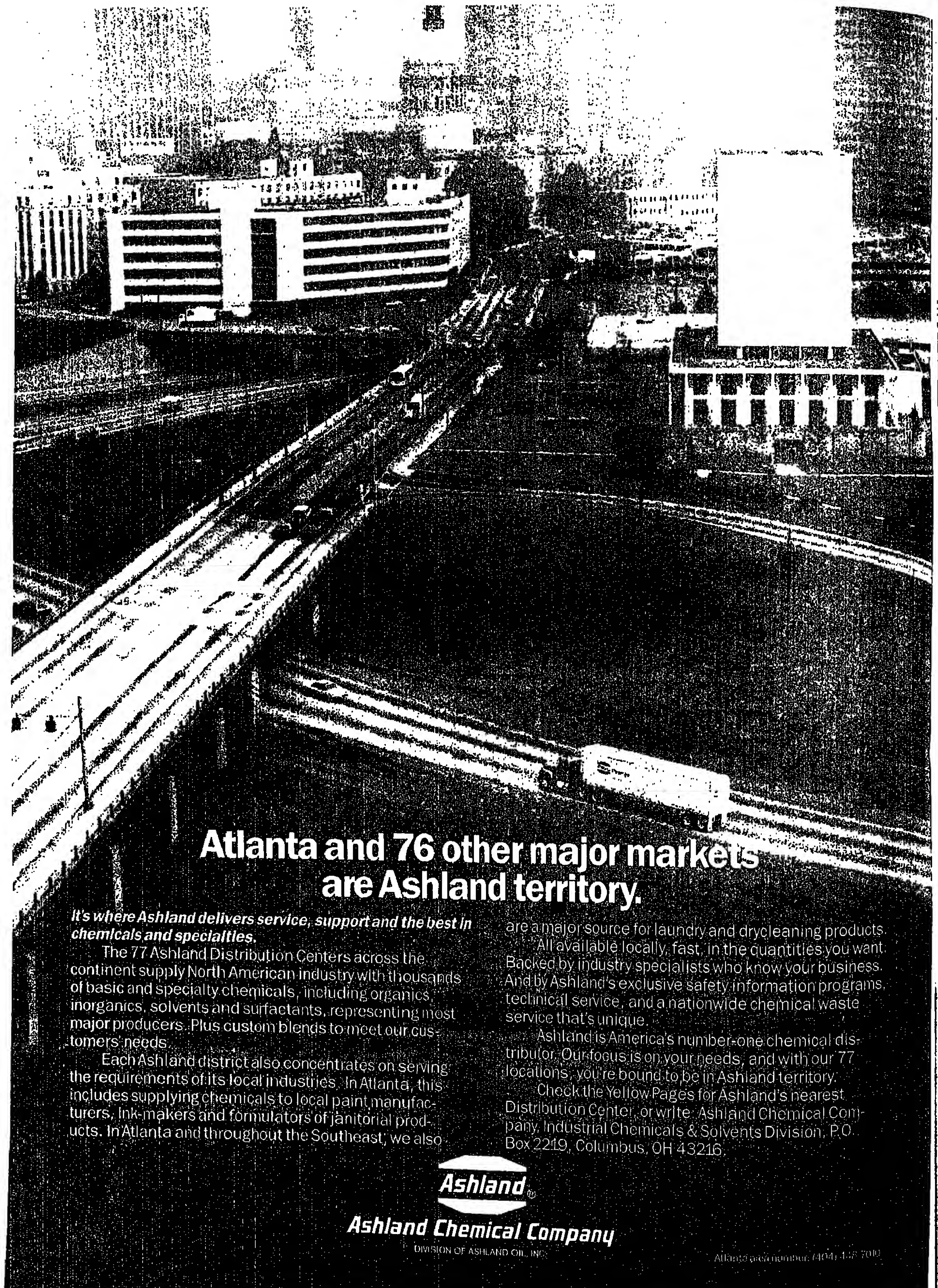

Methanol Excess is a Price Problem

Methanol supplies continue to far outstrip demand in the US, despite a huge gain in consumption for use in blending methyl tert butyl ether (MTBE). The result has been a continued deterioratin in methanol pricing, and a large buildup in inventories, particularly imported material.

Total domestic demand for methanol this year is estimated to reach 1.4 billion gallons, according to several sources. This marks an increase of over 100 million gallons compared to 1985. However, the combination of US production plus imports may come in at over 1.5 billion gallons for 1986, representing a 100 million gallon surge in inventories.

This oversupply, coupled with the sharp decline in crude oil and petrochemical prices this year, has led to a long, steep decline in domestic methanol prices. Starting at close to 40 cents per gallon in January, the price for methanol sold in barges on the Gulf Coast has now slid to about 26 cents per gallon, down a penny or two from last month. One seller ruefully called methanol, "the sloppiest commodity there is."

US methanol producers have carefully restructured their businesses in the past several years, closing several hundred million gallons of excess capacity. However, falling natural gas prices on the US Gulf Coast made it apparent that US-produced methanol in the past year has become as cost competitive with methanol produced anywhere in the world. Conse-

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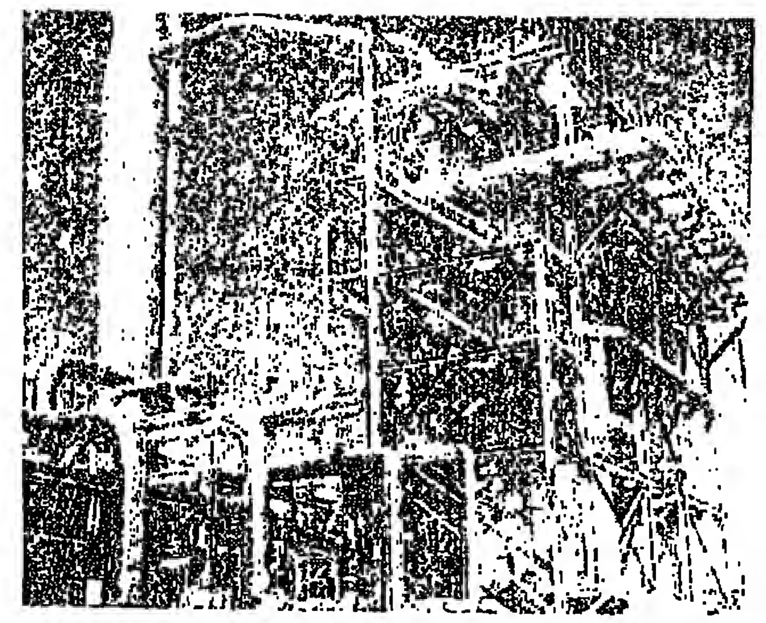

METHANOL UNIT: Falling gas prices induced US producers to increase output, but imports failed to back off and inventories may have risen by as much as 100 million gallons.

Chemical Marketing Reporter
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NOVEMBER 10, 1986

Elections' Outcome Shifts Chemical Outlook in Senate

Democratic Senators from the South and Southwest will run many of the committees which handle legislation affecting the chemical and pharmaceutical industries, including Finance, Budget, Commerce, Energy and Small Business, when the new Democratically-controlled chamber convenes in January. The region will lose the chairmanships of the Agriculture and Judiciary panels.

Winning control of the Senate gives Democrats more than the chairmanships of all the standing committees, which write legislation, hold hearings and consider nominations. They will also have a majority of members on each panel and will be able to control up to two-thirds of the staff positions.

In some cases, the transfer of power from the GOP to Democrats will result in a dramatic shift in ideology. For example, conservative business ally Sen. Orrin Hatch (R-Utah) will give up his Labor & Human Resources Committee chairmanship to a Northern liberal — either Sen. Edward Kennedy (D-Mass.) or Sen. Howard Metzenbaum (D-Ohio). The panel determines the initial fate of most legislation sought by drug companies.

Also, Sen. John Danforth (R-Mo.), a strong proponent of product liability reform, will yield the chair of the Commerce Committee to Sen. Ernest Hollings (D-S.C.) — the leading opponent of product liability legislation in the last Congress.

But Sen. Hollings will also be in a position to push for legislation to restrict textile imports, a top priority of the Man-Made Fibers Producers Association. John Gregg, chairman of the Fiber, Fabric & Apparel Coalition, said the election results will make it easier to pass a textile bill.

White House officials acknowledged that President Reagan's veto of a textile trade bill hurt Republican candidates in the Southeast, such as Sens. James Broyhill (N.C.) and Mack Mattingly (R-Ga.).

Sen. Lloyd Bentsen (D-Tex.) will become chairman of the Finance Committee, which handles taxes and most trade legislation. Sen. Bentsen, a strong advocate for the petrochemical and oil industries, voted for this year's comprehensive tax reform bill, written principally by outgoing chairman Sen. Bob Packwood (R-Ore.). But he indicated last week he wants the committee to reconsider some of the changes.

Sen. Bentsen also said he would give a trade bill top priority and predicted Senate action by Spring. He said he will push for a bill to enable US manufacturers to compete better in international markets, with or without the support of the President.

At the Environment & Public Works Committee, Sen. Robert Stafford (R-Vt.) will give way to Sen. Quentin Burdick (D-N.D.). He is expected to follow many of the policies set by his predecessor and push for legislation to control acid rain, and protect the nation's groundwater from toxic contamination.

The chairmanship of the Agriculture Committee could pose a problem for the Democrats. Sen. Patrick Leahy (D-Vt.), fresh off an election victory, can claim the post and bump Sen. Ed Zorinsky (D-Neb.), who has been the ranking Democrat on the panel.

Biotechnology Program Criticized on Capitol Hill

A congressional committee is questioning the scientific soundness of the Reagan Administration's program for regulating the biotechnology industry.

At issue, according to a report prepared by the House Science & Technology Committee's investigations and oversight subcommittee, is whether releasing living genetically-altered microorganisms into the environment is harmless or potentially hazardous.

President Reagan signed into law in May a package of rules for regulating pesticides and other products made from genetically engineered substances, including drugs and crop plants. One of the rules exempted several classes of genetically altered microbes from review by the Agriculture Department and Environmental Protection Agency before being released into the environment because they were found to be safe.

Dr. David T. Kingsbury, assistant director of the National Science Foundation, said the new program was based on widely accepted scientific theories about the behavior of microorganisms in the environment.

However, a number of ecological scientists attacked the program during congressional hearings, charging that information on microorganisms and their ability to survive and multiply in various environments is incomplete and the exemptions were therefore unjustified.

"All the facts are not in about these organisms," says Rep. Harold Volkmer (D-Mo.), chairman of the investigations and oversight subcommittee.

He says the panel is particularly concerned about the lack of review for regulator genes that control biological functions, and "opportunistic pathogens."

The new rules say removing regulator genes from one organism and splicing them into another is not risky. But the study cites testimony from environmental scientists and biologists who said shifting regulator genes from one organism to another could produce major changes that are potentially dangerous in certain environments.

Opportunistic pathogens are normally harmless organisms that may pose danger to people, plants and animals that have low resistance. The report said such pathogens should be reviewed because genetically modified versions could become pathogenic under certain environmental conditions.

Hoechst Launches Offer For Celanese

Hoechst AG of West Germany and Celanese Corporation last week cemented their long-standing relationship by signing a merger agreement, under which the American firm will be acquired by Hoechst's US subsidiary, American Hoechst Corporation, for $2.8 billion.

Hoechst has initiated a cash tender offer for all shares of Celanese common stock at $245 per share. Celanese has 11.1 million shares outstanding. In addition, Hoechst is also offering $172.40 per share for all outstanding shares of Celanese convertible preference stock and $102 per share for the company's 7 percent preferred stock.

Following the merger announcement last Monday (November 3), Celanese stock shot up $24 per share on the New York Stock Exchange, closing a couple of dollars below the offering price.

Wall Street analysts took a favorable view of the proposed merger, seeing synergism in the firms' respective polyester fiber activities. The merger would make Hoechst the largest US producer of staple and the second largest producer of filament fiber, behind E.I. du Pont de Nemours & Co.

Although Celanese and American Hoechst currently compete in the US polyester fiber market, they do not foresee any antitrust concerns getting in the way of the combination.

Hoechst and Celanese began their relationship 25 years ago with the formation of a joint venture in Germany, Ticona Polymer Works, which makes engineering plastics based on Celanese technology. Hoechst sells the plastics in the German market.

Earlier this year, the two companies began discussions about another engineering resins joint venture, and by Fall, the talks had evolved into a full-fledged merger negotiation.

The merger accord satisfies Hoechst's stated desire to increase its presence in the US, and marks the culmination of Celanese chairman John D. Macomber's drive to increase shareholder value.

Analysts speculate that the timing of the deal was also influenced by such factors as the fall in the value of the dollar, which makes American firms a cheaper buy, and changes in the tax code, scheduled to take effect at the beginning of next year.

Mr. Macomber, a management consultant before taking the helm at Celanese, is highly regarded on Wall Street for his restructuring job at the company. Largely defying conventional wisdom in the chemical industry, Mr. Macomber stuck to the company's basic products and initiated a drastic cost-cutting program, making the company a veritable cash machine.

"Macomber has done a remarkable job" at Celanese, says Jay Meltzer, chemical analyst at Goldman Sachs & Co., reflecting a view shared by other industry analysts.

Celanese will continue to operate as a separate entity with essentially the same management and structure intact, according to

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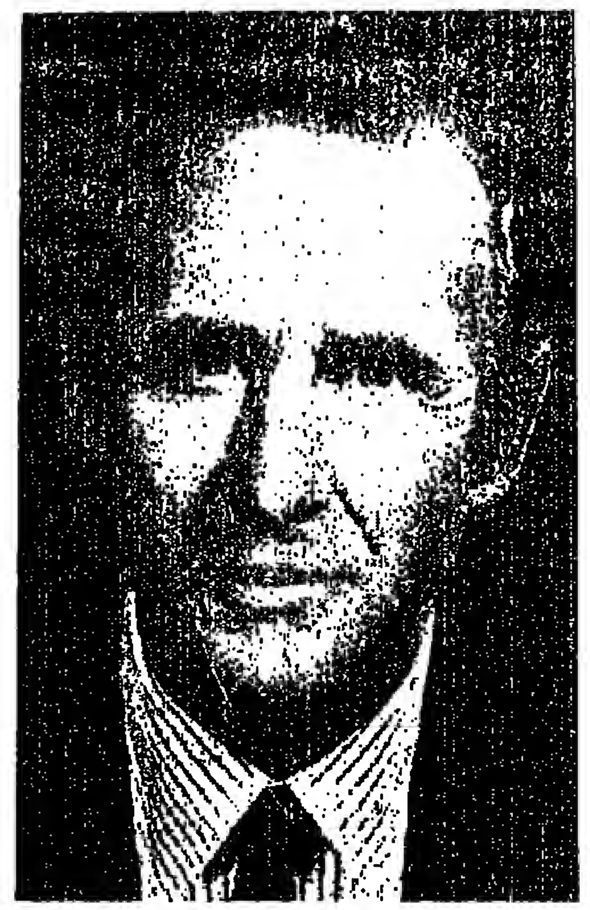

John D. Macomber

US–Canada Trade Talks Could Benefit Chemical Industry

The US and Canada are involved in the most important trade negotiations the neighboring countries have ever had, says US Trade Representative Clayton Yeutter. Mr. Yeutter told a gathering of American and Canadian business leaders at a symposium on trade relations he hopes the negotiations do not become bogged down with "anti-dumping and unfair trade practices provisions." He said Canadian industry and government seem more resistant to an agreement than their US counterparts, even though Canada would gain more from a relaxation of trade barriers.

"Although we will benefit from this negotiation, Canada will benefit even more," said Mr. Yeutter. "Generally, the smaller partner...has the greatest gains."

As an example, Mr. Yeutter cited a bilateral agreement with Israel which relaxed tariffs on Israeli exports of brominated chemicals, among other manufactured goods. "There's no question the greater benefits of that one have gone to Israel," he said.

As a result of that pact, Mr. Yeutter said Israeli exports to the US now exceed that country's imports of US-produced goods and services. "I see no reason why essentially the same scenario wouldn't apply to Canada," the trade official remarked.

The US chemical industry would support a free trade agreement with Canada if certain conditions are met, says Myron T. Foveaux, trade and economic policy advisor for Chemical Manufacturers Association.

Such an agreement, he says, must provide for balanced benefits in chemical conces-

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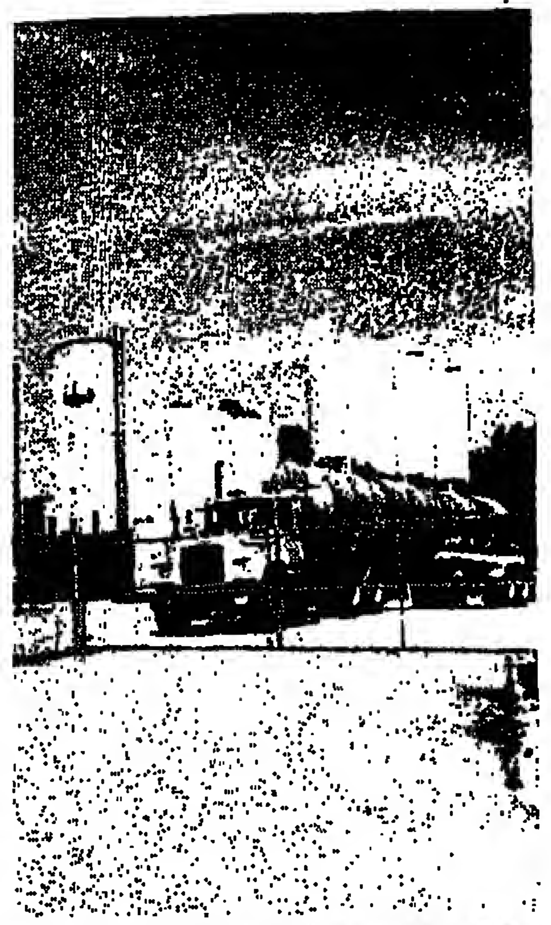
Toxic Waste Pact Inked by US, Canada

The Reagan Administration and Environment Canada have signed a bilateral agreement on the transboundry movement between the US and Canada for hazardous wastes for disposal or recycling.

Prior notification of proposed exports will include the identity of the transporter, the method of transportation, the amount and types of containers to be used, the point of entry, and the manner in which the wastes will be treated, stored or disposed of in the importing country.

In addition, the two governments say they have developed a work plan for cleaning up toxic contamination of the Niagara River.

The plan is the working document to be used in the joint effort to reduce the amount of toxic chemicals entering the river and specifies the activities and timetable to be followed to reach an acceptable level of water quality for the river.



SOLVENT RECLAMATION PLANT: A shortage of such facilities forced EPA to exempt some chemicals from immediate ban.

Solvent Disposal Limited by US Agency

Environmental Protection Agency issued new rules Friday prohibiting the land disposal of untreated spent solvents and dioxin-containing hazardous wastes. But because there is a shortage of alternative treatment capacity, the agency exempted dioxins and certain solvent mixtures for two years.

Under the regulations, which took effect November 8, wastes containing certain spent solvents and dioxins must be treated to reduce their toxicity so that only the less toxic residues are disposed of on land.

EPA says the most effective treatment available today for concentrated solvent and dioxin wastes is high-temperature incineration, which destroys the toxic waste components.

But dioxins get an immediate exemption from the ban for two years as do most solvents. Only concentrated solvents were affected Saturday, unless generated at a rate less than 220 pounds per month.

Water solutions and sludges containing less than 1 percent solvents, as well as concentrated waste from establishments meet-

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Himont Resins On Stream in Gulf

Himont USA Inc., Wilmington, Del. has just brought on stream two new grassroots polypropylene resin "Spheripol" process plants which have been under construction at its Bayport, Tex. and Lake Charles, La., sites and has restarted a line previously placed on standby.

The new bulk technology plant at Lake Charles will manufacture homoploymer, random copolymer and impact copolymer, and the Bayport plant will manufacture homopolymer for the present, the company says.

Himont has now completed its initial investment in new plants by completely duplicating its polypropylene resin capacity with four new-technology "Spheripol" process plants in the past three years. Himont has reaffirmed its commitment to the US domestic market by continuing to run some lines initially planned as standby capacity and this quarter restarting the line previously placed on standby

Sunflowerseeds Get Boost from USDA

Department of Agriculture says it plans to launch a $3-million program to expand exports of US sunflowerseed oil and other sunflowerseed products to Japan, Mexico, Venezuela, and Portugal.

Funds will be used to promote oil identified as 100 percent sunflower oil and also to provide technical assistance to processors to insure that a quality product is produced, says USDA.

"We want to increase sunflower oil consumption in these four contries and thereby increase demand for US sunflowerseed products," says USDA undersecretary Daniel G. Amstutz.

Promotional activities will be carried out through a cooperative agreement between USDA's foreign agricultural service and the National Sunflower Association, a commodity organization representing the sunflowerseed industry.

The Targeted Export Assistance program will be administered by USDA in accordance with the Food Security Act of 1985.

Grace Specialties Expand at Two Sites

W.R. Grace & Co. today announced the completion of a $10 million general expansion at the headquarters of its Dearborn Division, at Lake Zurich, Ill., and at the division's Mississauga, Ontario, Canada facility.

The Lake Zurich expansion includes the renovation and expansion of research and technical service facilities. The expansion modernizes the present facility, providing new capabilities to meet expected growth in the existing internal water treatment chemical market and in emerging wastewater treatment chemical businesses.

Expansion of the Mississauga facility includes warehouse and production facilities, a two-story office building, laboratory and pilot plant expansion, purchase of additional production, office and laboratory equipment, and other improvements.

DSM Caprolactam Passes Milestone

DSM's chemical group has produced its 3 millionth ton of caprolactam used as feedstock for nylon yarns and fibers and technical nylon application at its Geleen location, Holland. Caprolactam production on this site was started in 1951.

In addition to the Geleen facilities — where the caprolactam activities come under the fiber feedstocks business unit (Chemical Products Division) — DSM has a caprolactam production unit at Augusta, Georgia, USA (operating company Nipro Inc.).

With a total annual production capacity of 400,000 tons, DSM is in a position to cover about 15 percent of worldwide demand. DSM's caprolactam production is largely based on its own process knowhow. Stamicarbon BV, a subsidiary of the DSM-group, is responsible for worldwide commercialization of this knowhow. More than one third of the world's caprolactam production capacity is now based on DSM process knowhow.

DSM will invest some $85 million in the caprolactam plants at Geleen. These investments, to be effected between now and 1990, will be aimed notably at introduction of new technologies and energy saving.

Theophylline Rights Licensed by Cooper

Cooper Development Company through its wholly-owned subsidiary, Cooper Laboratories Inc., says it has acquired the rights to manufacture and market prescription pharmaceutical products in the US utilizing the sustained-release theophylline tablet technology of Pierre Fabre of Paris, France.

Cooper will apply for Food & Drug Administration approval of these products which will compete in the $130 million US market for sustained-release theophylline products used to treat asthma and the asthmatic component of chronic obstructive airway disease.

MTBE Plant Slated For EMP of Spain

UOP Inc., a unit of Allied-Signal Inc., has granted a license to EMP, Spain, for the construction of a unit to produce about 51,000 metric tons per year of methyl tert butyl ether at EMP's facilities in Tarragona, Spain.

UOP offers for license the MTBE process technology developed by Huels AG in Marl, West Germany. The Tarragona facility is the fourteenth unit worldwide designed to employ the Huels MTBE process.

NL Says Early Split Won't Be Possible

NL Industries announced today that its board of directors has decided that it is not feasible to implement a proposal that NL had been exploring to separate its petroleum services operations and its chemical operations on an expedited basis. The company will instead proceed with its original plan to separate the businesses by redeeming the NL series C preferred stock for shares of NL Chemicals common stock.

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Hercules, Henkel in Venture

Hercules Inc., Wilmington, Md., and Henkel KGaA, Dusseldorf, Federal Republic of Germany have agreed to form a joint venture in water soluble polymers, the two companies reported last week.

The agreement calls for the transfer of assets and businesses in early 1987 into a new "stand-alone" enterprise to be known as Aqualon Company. The group will consist of two partnerships: Aqualon Company, headquartered in Wilmington and Aqualon KG in Dusseldorf, as well as a corporation to be located in the Netherlands.

The policymaking body for the group will be a board consisting of an equal number of members from Hercules and Henkel. The chairman will be Dieter H. Ambros.

President of the Wilmington branch will be Eugene D. Crittenden. Konrad F. Schweiker will be executive vice-president and chief operating officer.

Sales of cellulose and guar-based polymers will total about $300 million, assets about $310 million. The combination of businesses will include Hercules' sodium carboxymethylcellulose, "Natrosol" hydroxyethylcellulose, "Klucel" hydroxypropylcelluse and guar derivatives — all from Hercules.

The Henkel business contribution to the new company includes methylcellulose, guar, and guar derivatives as well as CMC.

Aqualon Company will have responsibility for marketing and plant operations in North and Central America and the Far East. Plants under its jurisdiction include the former Hercules plant at Hopewill, Va., the former Hercules CMC plant at Brunswick, Ga., the "Natrosol" hydroxyethylcellulose plant at Hercules Parlin, N.J. site and the former Henkel water soluble polymers plant at Kenedy, Tex.

Aqualon KG will be responsible for marketing and operations in Europe, South America, Africa and the Middle East to be carried out by various operating companies.

Vinyl Chloride Standard Backed by Federal Court

In a 2-1 ruling, a Federal court of appeals last week upheld Environmental Protection Agency's decision against issuing more stringent emission standards for vinyl chloride under the Clean Air Act.

Emphasizing that EPA has much discretion in setting air quality goals, the court said the agency has the right to consider the cost to industry and the technological feasibility of complying with regulations in setting clean air standards.

Natural Resources Defense Council, the organization which brought suit against EPA, said the decision, if upheld after further appeal, would allow the agency to weaken Federal air quality enforcement efforts.

But in an opinion by Judge Robert Bork, the appeals court said that because the benefits of reducing permissible emission levels for vinyl chloride were unclear, EPA acted properly in considering factors other than public health, including a cost-benefit analysis.

EPA issued air quality standards for vinyl chloride in 1976. The standards were challenged by environmental groups, and EPA agreed to settle the suit by proposing more stringent regulations in June 1977.

However, the final rules were never published. Instead, EPA withdrew its proposal last year and re-proposed the original 1976 standards.

In rendering its decision on a subsequent appeal by NRDC, the Federal Court of Appeals for the District of Columbia pointed to a 1984 Supreme Court decision that said when a Federal regulatory law is unclear, Federal courts should give strong consideration to the decisions of the agency that enforces the law.

The appeals court said it found the section of the Clean Air Act in question to be ambiguous and EPA's decision to consider costs and benefits "reasonable."

EPA officials applauded the decision, but Judge Skelly Wright dissented, agreeing with the environmentalists that the law "is as devoid of ambiguity as any statutory provision probably can be."

David Doniger, an NRDC attorney, said the ruling may affect other pending challenges to RPA standards for benzene and

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Aluminum Import Tariffs Are Reduced by Japan

Japan has agreed to reduce tariffs on aluminum imports and to consult with the US semi-annually on other issues related to trade in aluminum, says US Trade Representative Clayton Yeutter.

"This agreement will make American aluminum producers more competitive in the world's second largest market," Mr. Yeutter says. "It should increase access in Japan for US aluminum exporters and help save American jobs in an important industry."

Under the agreement, Japan will lower the tariff rates on unwrought aluminum from 9 percent to 5 percent on April 1, 1987 and to 1 percent on January 1, 1988.

Japan's 9.2 percent tariff on aluminum plate, sheet and strip will decline to 6.1 percent on April 1, 1987 and to 3 percent on January 1, 1988. The January 1988 rates were agreed to last December.

In addition, both sides agreed to establish an Ad Hoc Committee on US-Japan Aluminum Trade that will consult on issues affecting trade in aluminum, monitor the implementation of the tariff reductions, and discuss government policies and practices in the aluminum industries of both countries that affect US-Japan trade.

Over the past few years, the US share of the Japanese aluminum market has been falling. From 1980 to 1985, US ingot exports to Japan dropped from 307,000 metric tons to 198,000 metric tons.

In addition, US aluminum exports to Japan, the largest market in the world except for the US, are less than 2 percent of total American aluminum exports.

"We expect lower tariffs in the agreement to help reverse these conditions," says Mr. Yeutter. He adds that both sides committed themselves to follow international trading rules in US-Japanese aluminum trade and to maintain open, liberal, non-discriminatory and fair-trading conditions that are free of improper government involvement.

"In 1985, US exports of aluminum sheet and plate to Japan were only 2,600 metric tons," Mr. Yeutter notes. "Japanese sheet and plate exports to the US reached 142,000 metric tons. Clearly something is wrong when there is a disparity of this magnitude in a sector in which the US is internationally competitive."

The agreement concludes consultations that have been held since December 1985 when Japan agreed to provide greater access for aluminum in compensation for restrictions in its leather market.

Dow's Oreffice Sees Basics Back on Track

Basic chemicals are now achieving parity with specialty chemicals and ordinary consumer products in growth of sales and earnings, after seven very lean years, and should retain it through the balance of the decade, officials of Dow Chemical Company, the nation's largest producer of basic inorganic chemicals, told a meeting with the New York Society of Security analysts last week.

Paul Oreffice, president and chief executive officer of the Midland, Mich.-based company, said that Dow, once heavily dependent on basic chemicals, had achieved its goal of getting 50 percent of its earnings, on a regular basis, from specialties and consumer products.

The boost on the specialties side was achieved by internal growth and by several important acquisitions, including the purchase of the Merrell pharmaceutical operations of the former Richardson-Merrell Company (the other half of Richardson-Merrell was recently purchased by Procter & Gamble Company), and acquisition of the Texize laundry products division of Morton-Thiokol Inc., of Chicago.

The outlook now, Mr. Oreffice said, is for a continuation of the fifty-fifty ratio over the next few years as improved supply balances and rising prices secure for basic chemicals a rate of growth and profitability comparable to specialties and consumer products.

Mr. Oreffice carefully distinguished between basic and "commodity" chemicals and declared that many of Dow's basic chemicals, such as polystyrene, are premium

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Paul Oreffice

Alpha Tocopherol Found Aid Against Nitrosamines

As of last week, bacon processors can apply alpha tocopherol, a form of vitamin E, to the surface of bacon to prevent the formation of potentially harmful chemical compounds called nitrosamines that are produced during frying.

Approval of the surface application techniques by the US Department of Agriculture marks the culmination of a ten-year research effort by Hoffmann-La Roche Inc., which made the announcement. Part of the research was conducted in cooperation with the Agriculture Department.

Nitrosamines form at high frying temperatures when nitrite from sodium nitrite, which is used in the bacon curing process to prevent growth of organisms that cause botulism, combines with naturally occurring amines in the meat. Various nitrosamine compounds have been shown to be carcinogenic in laboratory animals.

While nitrosamine levels in bacon already are strictkly limited by the USDA, the approval of vitamin E as a nitrosamine inhibitor is significant for several reasons, according to William J. Mergens, a product development research scientist at Roche who participated in the alpha tocopherol studies.

"This development will make available to bacon manufacturers another option for complying with existing regulations governing nitrosamine levels in their products," Mr. Mergens says. "Coupled with the USDA's approval last summer of new processing methods that use less nitrite than previously required," Mr. Mergens notes, "the new alpha tocopherol surface application techniques will help to further reduce the nitrosamine levels in bacon, making it safer for consumers. In the US, bacon is consumed at a rate of approximately 1.5 billion pounds a year, or about a half strip per person per day, according to meat industry sources.

Nitrosamine exposure may arise not only from the body's normal biochemical proc-

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DSM Completes the Sale Of US Fertilizer Operation

DSM, the Dutch chemical group, has sold its US fertilizer unit, Columbia Nitrogen Corporation, based in Augusta, Ga., to a newly-formed corporation owned in part by CNC management.

CNC's major lines of production include ammonia, ammonium nitrate, urea, nitric acid and liquid fertilizers.

The fertilizer firm will be headed by William P. Copenhaver, previously president of both CNC and Nipro Inc. Nipro, which manufactures caprolactam, is part of DSM's chemical products division.

Nipro's new president is Brent Mullis, previously vice-president of CNC and Nipro.

DSM says the sale of CNC will have no effect on its other activities at Augusta, including Nipro's operations, as well as the new powder resin plant there, which is scheduled to come on stream early next year.

CNC was formed in 1962 by DSM and its US partner, PPG. The Dutch firm bought out PPG's stake in the early 1970's. DSM decided to withdraw from the business in July.

Sale of the business is not expected to have an effect on CNC's workforce of 400. CNC's annual capacity of nitrogenous fertilizer is currently around 1 million metric tons.

In addition to members of CNC's management, the newly-founded company which took over the fertilizer manufacturer is also owned by Andlinger & Co. Inc., a New York-based private investment banking and management firm.

Olin Converts Chloralkali Plant

Olin Corporation announced last week that it has completed the conversion of some of its Niagara Falls, N.Y., chloralkali plant to the production of liquid potassium hydroxide (KOH). The plant began shipments to customers last week, five months after the project was begun.

Leon B. Anziano, Olin's vice-president and general manager of industrial chemicals, says that the startup has proceeded extremely well.

Nicholas Pappas

Du Pont Grooms Resin For Big Role in Detroit; Breakthrough Claimed

The rapid penetration of automotive markets by plastics which the chemical industry has always hoped for and often predicted could soon become a reality through a new breakthrough by E. I. du Pont de Nemours & Co. that reportedly improves all of the relevant properties of its polyarylate resins and initially lowers the cost by 20 percent, with further cost reductions promised.

The research breakthrough was announced by Du Pont in New York on Election Day last week. While Nicholas Pappas, Du Pont's group vice-president for polymer products, and his associates, laid great stress on the potential in autos, because of the large market potential there, they also said that rapid acceptance was expected in electrical and electronics markets and consumer and recreation outlets.

Dr. Pappas said the new Du Pont process produces a plastic that is super tough, for the impact resistance needed in automobiles, and has high heat resistance.

The new engineering resins, introduced under the trademark "Arylon," also have excellent weathering characteristics, and are easier to process than are other high-performance plastics, including the existing line of polyarylate resins, Dr. Pappas said.

Lawrence H. Gillespie, Jr., director of the department's plastic engineering operations, predicted that as a result of the breakthrough, polyarylate's sales volume could become as large as that of nylon resin, currently the largest of the engineering plastics, with an estimated 35 percent of a world market of 4 billion pounds a year. Engineering resins are growing at about 8 percent yearly, worldwide, Mr. Gillespie said.

For automotive uses, the new polyarylates will be sold under the existing tradename "Bexloy." A variety of "Bexloy" M alloys are now under development for injection molding, blow molding and thermoforming, which will lead to lower production costs for auto makers, Mr. Gillespie said.

"Bexloy" M will be priced competitively with other plastic systems competing in the body part market, but will require only about half the cycling time as thermoset resins, he added.

With the diversity of markets and uses

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Water Bill Veto By Reagan Laid to Costs

President Reagan, heeding the advice of the White House budget office, Thursday vetoed widely supported legislation to revise and reauthorize the Clean Water Act, saying the proposed $18 billion extension is too expensive.

In a statement explaining the reasons for his pocket veto, the President said his administration remains committed to the objectives of the 1972 clean water law and will work closely with the next Congress to pass acceptable legislation.

"Unfortunately, this bill so far exceeds acceptable levels of intended budgetary commitments that I must withhold my approval," President Reagan remarked, noting the measure would triple the amount he had requested for the program.

The legislation vetoed last week was passed unanimously by the outgoing Congress and was strongly supported by environmentalists. Chemical Manufacturers Association said the final product was an adequate compromise and urged the President to sign the bill.

Sen. Daniel Moynihan (D-NY), said a presi-

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Waste Rules To Be Widened By US Agency

Environmental Protection Agency is proposing to regulate "miscellaneous" hazardous waste units not now covered under existing Federal hazardous waste regulations under the Resource Conservation & Recovery Act (RCRA).

The proposal would set new, general permitting standards for many types of units in need of hazardous waste controls which do not fall under existing facility definitions. EPA says the proposal is designed to close the gaps in the current regulatory program.

Under the proposal, the agency would apply a combination of performance standards that would address groundwater and subsurface migration, surface water and air on a case-by-case basis as requests for permits are received.

EPA says this approach would allow the agency to address a full range of environmental issues raised by a particular waste management situation without waiting to establish specific standards for each type of unit.

Canadian Drug Bill

The Canadian Government last week introduced legislation in Parliament to extend patent protection for brand name drugs. Draft legislation circulated before Parliament's Summer recess provided up to 10 years of market exclusivity, but the bill introduced last week provides only seven years protection from generic copies.

Merck Seeks Approval

Merck & Co., Inc. plans to file a New Drug Application requesting Food & Drug Administration approval to market lovastatin, a Merck drug discovery for lowering high levels of cholesterol.

"Lovastatin is a promising cholesterol-lowering agent discovered by Merck scientists. In long-term clinical trials, lovastatin continues to show a high degree of safety and more effectiveness than any known drug in reducing the elevated levels of low-density lipoproteins that are correlated with coronary heart disease," said Dr. P. Roy Vagelos, chairman and chief executive officer of the health products company.

Merck announced last week that it had just received FDA approvals to market "Noroxin," an oral antibacterial for urinary tract infections, and "Vaseretic," a cardiovascular drug that combines the company's antihypertensive "Vasotec" with Merck's long-established diuretic "HydroDiuril."

The company will simultaneously introduce in the United States next week both "Noroxin" and "Pepcid," a recently approved H-2 receptor antagonist for control of duodenal ulcers.

"Vaseretic" will be introduced in the United States in the first quarter of 1987, followed by introductions abroad later that year. The company expects that physicians will often choose this product for patients whose high blood pressure is difficult to control.

Warner-Lambert Reviews Drug Development Efforts

Warner-Lambert Company, in scientific presentations to financial analysts last week, reviewed its progress in developing pharmaceutical compounds in several therapeutic areas, including antibacterials, cardiovascular, anticancer, central nervous system, and allergy and asthma.

The company said its broad-spectrum antibacterial comprecin (enoxacin) has been deemed approvable for marketing in West Germany, and that marketing would begin early next year. A new drug application (NDA) was submitted to the Food & Drug Administration (FDA) in October to market enoxacin in the US. Enoxacin also has been deemed approvable for marketing in New Zealand.

Enoxacin is a quinolone antibiotic, one of a promising new class of drugs. In worldwide clinical studies involving 6,500 patients, it has been shown to offer effective bacterial action against a variety of conditions, including infections of the urinary tract, skin and soft tissues, lower and upper respiratory tracts, and genital tract infections.

Enoxacin was licensed by Warner-Lambert from Dainippon of Japan. Several new quinolones are being researched at the Warner-Lambert/Parke-Davis Research Center in Ann Arbor.

In the cardiovascular category, the company noted that its beta-blocker bevantolol has been approved in Denmark for the treatment of hypertension and angina pectoris. An NDA for hypertension is currently under active review by the FDA.

The company also said that it has developed a combination product of bevantolol with the diuretic hydrochlorothiazide and filed an NDA for the product in 1985.

The fastest-growing segment of the beta-blocker market in many parts of the world is in drugs that are in combination with diuretics. Quinapril, an ace inhibitor cardiovascular drug, is the subject of a worldwide clinical development program for the treatment of hypertension and angina pectoris, the company said. A combination product including hydrochlorothiazide is also in development.

Also in the cardiovascular area, the company said that quinapril and a specific cardiotonic agent, imazodan, are being tested for efficacy in improving cardiac performance in the case of heart failure. Imazodan is a chemically novel, orally effective agent that is able to increase the force of myocardial contraction, with the added benefit of peripheral vasodilatation.

In comparison with other currently available drugs for congestive heart failure, imazodan may possess a greater degree of cardiac safety than digitalis, and is orally effective, in contrast to dobutamine and dopamine, which must be given intravenously, the company says.

In the antiarrhythmic segment of the cardiovascular field, the company discussed pirmenol, which is currently being devel-

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CFC's Cap Now Planned By Officials

Following an earlier policy shift by the US chemical industry, the Reagan Administration plans to propose a global cap and eventual phase-out of emissions of man-made chemicals linked to the world-wide phenomenon of ozone depletion.

An Environmental Protection Agency official says the proposal to freeze production of chlorofluorocarbon and halon gases at or close to current levels will be submitted to other nations to elicit their views before the US makes a formal proposal at a meeting sponsored by the United Nations Environment Program in Geneva, Switzerland, during the first week of December.

A State Department cable to US embassies made available by EPA said that "based on current scientific understanding, considerable risks may exist to humans and the environment from continued or expanded global emissions" of these chemicals.

The cable said the US position also would be to provide adequate time for companies to shift away from the chemicals "to avoid social and economic disruption."

A State Department spokesman says the US will seek incentives designed to narrow CFC emissions, but has not yet determined how much of a cutback is needed because of scientific uncertainty.

CFC production dropped in the late 1970's, but has now started a comeback. The US produces about a third of the gases manufactured in the free world.

CFC's are used primarily as refrigerants for air conditioning systems and refrigerators and in the manufacture of plastic foam used in insulation and packing purposes. In addition, the chemical is still used as spray can propellants in many countries. Halons,

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Retail Gas Price Seen Dropping By 6 Percent

Retail natural gas prices for the 1986-87 heating season are expected to be 6 percent below the same period last year, the American Gas Association said last week.

An AGA study, "Estimated Change in Natural Gas Prices During the 1986-87 Winter Season," analyzed the purchased gas adjustment filings of 25 interstate natural gas pipelines accounting for 95 percent of interstate gas purchases. The analysis showed that the gas price decline which started in 1985 is continuing despite an inflation rate 2.4 percent higher this heating season than last.

The average national retail natural gas price is expected to be $5.28 per MM Btu's this winter, compared to $5.60 per MM Btu's in the winter of '85-'86, the A.G.A. says.

The analysis shows a complete pass through to the natural gas distributor of the 32 cents per MM Btu's price drop this winter by gas pipelines. This 32 cent decline in the city-gate price passed through to residential gas consumers represents a 6 percent decline in their gas price compared to last winter.

The analysis points out that commercial and industrial customers are having a higher percentage price decline than residential consumers because the actual gas commodity cost is a much higher percentage of their rates and thus declines in gas costs have had a larger impact on retail rates for these service sectors.

The analysis also notes the commercial and industrial customers are benefiting from rate restructuring at the state level.

The analysis states that such restructuring to retain large volume gas users is protecting the residential customer from paying a high proportion of the operating costs of the system.

News Capsule

Lilly Plans Purchase

Lilly Industrial Coatings Inc. has agreed to purchase 49 percent of the outstanding common stock of American Lacquer and Solvents Company from Frank Esposito, owner of the two firms. Lilly will also hold an option to purchase the remaining 51 percent interest in both firms.

Williams Mulls Restructuring

Williams Companies chairman Joseph H. Williams told security analysts that the company is considering various financial restructuring steps to enhance shareholder value. "It would be premature at this time to outline the specifics," Mr. Williams said, but added that they would likely be implemented before year's end. Some steps have previously been discussed.

IMC Launches Unit

International Minerals & Chemical Corporation has formed a new scientific business unit, the IMCELL Products Division, to produce and market growth factors and related serum replacement products to the cell culture industry. The new division will seek to position itself as a major supplier to the emerging cell culture industry, where products include pharmaceuticals, diagnostics and vaccines.

Nat'l Distillers Buys

National Distillers & Chemical Corporation has completed the purchase of Enron Chemical Company, the petrochemicals subsidiary of Enron Corporation. The purchase price was approximately $570 million in cash and the assumption of approximately $34 million of industrial revenue bond indebtedness.

Dow Health Study

As part of its health surveillance program, Dow Chemical Company has completed a general study of its Ludington, Mich., plant employees, which found a "significantly lower than average mortality rates from major causes of death. The observed rate for all major causes of death, including all cancers, was 30 percent below the expected level, based on comparisons with two general population groups," Dow said.

Uniroyal Sells Subsidiary

Uniroyal Inc. has sold its Uniroyal Plastics Company Inc. subsidiary to Polycast Technology Corporation for approximately $110 million. Uniroyal Plastics manufactures high-technology rubber and plastic-based products, including coated fabrics, adhesives, sealants, engineered systems, thermoplastics sheet and composites, specialty foams and flexographic printing plates.

FMC In Accord

FMC Corporation says it has reached agreement with Centocor Inc. to exchange FMC's 50 percent interest in Immunorex Associates, a joint venture of the two companies, for 1.35 million shares of Centocor common stock. The agreement is subject to the approval of the boards of directors of both companies. The accord ends a dispute between the firms over the property rights of Immunorex, which specializes in research and development of monoclonal antibodies and immunoregulation products.

CPC's J.R. Eiszner

CPC Buys Back Shares Held By Perelman

From the timing of events, at least, it would seem that all CPC International Inc. had to do was to say it would restructure itself and buy back 10 million of its shares, and it was able to thwart a hostile acquisition by a group led by Ronald O. Perelman.

Mr. Perelman, chairman of Revlon Company, who has purchased several companies and sold off their assets at large profits, sold back about 4 million shares of CPC, amounting to 8.3 percent of its outstanding common shares, a day after CPC had announced its plans for restructuring and buying back shares.

When CPC announced its plans, the company noted that an investor group had accumulated more than 5 percent of its shares.

CPC said that its investment banker, Salomon Brothers Incorporated was developing strategies for restructuring the company so as to maximize values to shareholders.

"This new direction is intended to achieve sharper strategic focus on the company's US and grocery products businesses and to lead to significant reductions in overheads and

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Chesebrough Sets $150 Million In Divestments

As part of its continuing realignment of product lines, Chesebrough-Pond's Inc. is offering to sell selective, nonstrategic chemical and related businesses with aggregate annual sales of about $155 million, according to Ralph E. Ward, chairman and chief executive officer.

The businesses offered for sale comprise Stauffer Seeds, with plants in Lone Tree, Iowa; Hutchinson, Kan.; Danvers, Minn.; Phillips, Neb., and Madison, Wis.; chlor-alkali plants in St. Gabriel, La., and Henderson, Nev.

Also, formulated food system plants in Rochester, Minn. and Clawson, Mich. Shearson Lehman Brothers, Inc., New York, is acting as financial advisor for these transactions.

In addition, Chesebrough is offering for sale its fabricated plastics business, with a plant in Anderson, S.C. The sale of this unit will be handled directly by Chesebrough's treasurer's office.

No changes in operations or employment

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Union Carbide Attacks Debt Incurred Earlier

Union Carbide Corporation has adopted a plan to redress its balance sheet by retiring or converting much of the huge debt incurred in its successful defense earlier this year against an unsolicited tender offer to acquire the company by GAF Corporation, of Wayne, N.J.

Union Carbide will undertake a major recapitalization plan that will significantly reduce the corpoation's debt and interest expense, strengthen its financial condition and increase "its ability to pursue future growth opportunities free of restrictive indenture covenants, without earnings dilution," a company spokesman said.

In the first step, Union Carbide has commenced a tender offer to purchase all of the $2.5 billion principal amount of securities issued to shareholders pursuant to its January 1986 exchange offer, which was a successful counter-offer to GAF's tender for Union Carbide's common shares. These securities bear an average interest rate of 14.2 percent.

Because of their high interest rates, the securities will be purchased at substantial premiums, which will result in an extraordinary charge to earnings in the current quarter. First Boston Corporation will act as dealer-manager for the tender offer.

After the tender offer, Union Carbide will repay a substantial portion of the purchase price for the securities with proceeds from the previously announced divestment of the company's agricultural products and electronics component businesses and the sale and leaseback last week of its Danbury, Conn., headquarters, plus the net proceeds of a $500 million domestic and international public offering of Union Carbide common stock.

Late in the week, Union Carbide announced that the corporation had signed a letter of intent with Related Companies, Incorporated, of New York, for the sale of the Danbury headquarters building and its 650-acre headquarters site, and for the leaseback of the headquarters building. The sale price will be approximately $345 million.

The transaction is expected to be completed by year-end. A pre-tax gain in excess of $100 million is expected to be realized over approximately 20 years and is expected to have no material effect on net income in 1986.

In addition, Union Carbide will participate in a limited partnership with Related Companies for the planned future development of

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Petro-Lewis Holders Tender

Freeport-McMoRan Incorporated advanced another step in its effort to gain control of Petro-Lewis Corporation when the bulk of Petro-Lewis's outstanding securities were tendered to FPCO, Inc., under FPCO's tender offer. FPCO was formed under the direction of Freeport-McMoRan.

FPCO said last week that it had accepted for payment all the Petro-Lewis debt securities tendered pursuant to its offer, including over 98 percent of the senior unsecured notes, over 90 percent of the senior subordinated notes and over 61 percent of the subordinated notes.

FPCO intends to seek additional Petro-Lewis debt securities on the open market for cash or in exchange for securities at prices higher than, the same or lower than those in the expired tender offer, and may make such purchases directly or indirectly, through one or more agents, the company said.

If FPCO is unable to acquire the remaining debt on acceptable terms and Petro-Lewis is unable to pay its obligations FPCO will protect its interest as the majority public creditor.

As the holder of substantially all of Petro-Lewis's senior secured and a senior subordinated public debt, FPCO said it would be in a strong position vis-a-vis other debtholders in any bankruptcy proceeding.

Dow's, Monsanto's Shares Are Recommended by Analysts

Stock market analysts in London and New York are issuing a number of positive reports on multinational chemical companies based on the improving supply balance and upward price trends for commodity chemicals. Among the companies getting positive evaluations and purchase recommendations on their shares are Dow Chemical Company, of Midland, Mich., and Monsanto Company of St. Louis, Mo.

At E. F. Hutton & Co., analyst John P. Henry has rated Monsanto Company as a strong "buy" both near-term and longer term in light of encouraging results in both agricultural and medical areas. Mr. Henry's associate, Christopher H. Willis, recommended that clients accumulate the shares of Celanese Corporation, just prior to announcement of the Celanese-Hoechst Corporation merger agreement.

Robert S. Reitzes, chemical analyst at Mabon, Nugent & Co. judges that Dow's shares are attractive on the strong probability that some important recently announced price increases in commodity chemicals will hold.

In London, Howard Coates, analyst at Barclays de Zoete Wedd, likes the current value in the share price of Laporte Industries PLC, one of the big titanium dioxide producers. Currently, Laporte's shares are selling at 12.5 times earnings, a price/earnings ratio that is somewhat lower than the market average, whereas, Mr. Coates states, Laporte should command a premium of 15 to 20 percent over the market average.

Peter Woods and Mark Clark, analysts with Barclays de Zoete Wedd's Health & Household Sector, have issued a buy recommendation for Amersham International PLC. They cite continued strong growth in the Research Division and the success of the company's diagnostics operations in the US. Also the Industrial Division is benefiting from the first contribution of a new US acquisition — Radiation Products.

At Wertheim & Co., Jonathan S. Gelles, said that a recent meeting by Sterling Drug Incorporated confirmed his belief that that company is undergoing a major change that will boost its annual profit growth from the 4-5 percent range of 1980-1985 to at least 13 percent over the next three-year period.

Mr. Gelles cites the projected launch of milrinone in late 1988 as a spur to a forecast growth rate of 15 percent year from 1988 onwards.

Robin Hindle Fisher, of Barclays de Zoete Wedd, is advising that company's clients to buy Granyte Surface Coatings PLC, one of the leading producers of wood finishes in the United Kingdom.

The company has been growing rapidly

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Soybean Oil Market Weakens As Crush Rate Ups Supply

Strong crush rates through the month of October are providing the market with more soybean oil than it can consume. As a result the prices, which had been moving upward for several weeks, have begun to ease down, as consumer demand for the oil is also backing off.

The soybean crush rate rose every week during the month of October, according to industry figures, reaching a high of 22.3 million bushels for the week ending Oct. 29. This compares to the crush rate one year earlier of 18.9 million bushels for the week ending Oct. 30, 1985.

The present crush rate is being fueled by strong meal demand, sources say, both in the US and abroad. Part of the domestic demand seen now represents an effort to catch up to slow production earlier this year. "Crushers took a lot of downtime this Summer," says an industry analyst, "and when they wanted to crush, to build up their stocks, the lateness of the crop kept material from being available."

The heavy crush rate is supplying the oil market with more material than it seems to need. Domestically, consumers are said to be well-covered. "The pipelines have been filled," says a source, "and demand is more than satisfied. For oil, the supply is going up as the demand is coming down."

SOME REFINERIES SLOWED

He goes on to note than some refineries are slowing down, particularly for salad oil. Some sources see consumer interest as at least fair, but not sufficient to absorb all the oil being produced.

What is hurting US oil producers worse than lagging domestic buying is the lack of European demand. "There is no export business for soy oil from the US," says one dealer. He blames this on European rapeseed and soybean oils, as well as on Malaysian palm oil, all of which are at a discount to US soy oil at delivered prices in Europe, he says.

He predicts that some "major oil buying" from a consumer such as India or the Soviet Union would spur the world oil market and provide relief for US soy oil. Although India has recently announced a cutback in the amount of vegetable oil it will import, he says, it is believed India will have a difficult time meeting its demand with domestic oil.

Not all dealers are convinced that soybean oil stocks are building up. "I would not call demand disappointing right now, and we are certainly not drowning in oil," says a dealer. Nevertheless, the crush rate is climbing and, as one dealer says, "We don't see the build-up in the stock figures yet, but we're seeing it on the market."

FRIDAY SPOT PRICES

MARKET CLOSE NOV. 7, 1986

CRUDE VEGETABLE OILS		
Coconut oil, NY	lb.	.20¼
Coconut oil, Pacific	lb.	.NA
Corn oil, Midwest	lb.	.20½
Cottonseed oil, Valley	lb.	.17
Linseed oil, Minneapolis	lb.	.25
Palm oil, NY	lb.	.16
Peanut oil, Southeast (restricted)	lb.	.30½
Soybean oil, Decatur	lb.	.15
REFD. VEGETABLE OILS		
Coconut oil, t.w., NY	lb.	.28
Corn, jumbo tanks	lb.	.2940
Cottonseed oil, jumbo tanks, NY	lb.	.26¾
Peanut oil, jumbo tanks, NY	lb.	.38¼
Soybean salad oil, NY	lb.	.1938
OILMEALS		
Cottonseed, 14% bulk, Memphis	ton	$155
Linseed, extracted, 34% bulk, Fargo	ton	$105
Peanut, 50% bulk, SE, Alabama	ton	$165
Soybean, unrest., 44% bulk, Decatur	ton	$155
FATS & GREASES		
Grease, white, choice, tanks, divd., NY	lb.	.10¼
Grease, yellow maximum 10%, ffa tanks	lb.	.9½
Lard, loose, bulk tanks, divd., Chicago	lb.	.15
Tallow, inedible, fancy, tanks, divd., NY	lb.	.12¼
Tallow, inedible, blch., tanks, divd., NY	lb.	.12

VEGETABLE OILS

CASTOR OIL — The price of this oil is quoted at 31c. to 33c. per pound for raw No. 1 oil from Brazil, in tanks. Trading activity is described as quiet at the moment, with consumers unwilling to meet present prices. "It's a stand-off between buyers and sellers, and it's just a matter of who gives in first," says an industry source.

Adding to consumers' reluctance to do business are the plentiful supplies in the market. Brazil is continuing to indicate that its prices will come up, sources say. But, as one dealer says, "Stocks are so ample here that it's hard to justify raising prices." Brazil's short crop situation, their reason for wanting to raise pricing, is being eased by their import of castor beans from China and Paraguay, a source says.

PRICES TRENDLINES

WEEK ENDING NOV. 7, 1986

CHANGES/UP

Coconut oil, NY, ¼c. per lb.
Cottonsed, 41% bulk, Memphis, $5 per ton
Grease, white, choice, tanks, divd., NY, ¾c. per lb.
Grease, yellow maximum 10%, ffa tanks, ½c. per lb.
Soybean, 44% bulk, Decatur, $2 per ton

CHANGES/DOWN

Palm oil, NY ½c. per lb.

OILS, FATS INDEX

The Oils, Fats & Waxes index reflects the prices of 11 representative materials in this sector and the quantity of each produced in 1985.

Nov. 7,. 1986	82.74
Oct. 31, 1986	81.94
Oct. 10, 1986	78.39
Nov. 8, 1985	90.60

Chemical Prices Start on Page 36

COCONUT OIL — The coconut oil market has been very erratic, with prices rising and falling from day to day. Traders attribute this to the activity of origin sellers, who have been entering the market on an irregular basis to repurchase contracts. Most of the activity has been among dealers, with consumers staying away from these high prices.

COTTONSEED OIL — Following a period of strong buying activity, demand for cottonseed oil has begun to fall off. High prices for coconut and palm oils spurred buying interest in cottonseed oil, particularly for forward positions, according to an industry source. Last week, however, as prices of those oils started to weaken, so did the interest in cottonseed oil.

Nevertheless, upward pressure on the price is expected to remain due to the reduced size of this year's crop. Also, stiff competition from dairy farmers, looking to buy cottonseed as feed for their herds, make it unlikely that crushers will be able to buy very much seed this year, thereby keeping oil stocks low. Aggravating the short supply situation is the fact that oil yields from some of the crop have been low, particularly from seed planted late in the season, in time to be hurt by dry weather.

LINSEED OIL — Producers are expecting a more stable linseed oil market this year due to farmers' reluctance to flood the market with seed. "The farmers put away more flaxseed than we thought they would," says an industry source, who cites dissatisfaction with current price levels as the reason for withholding some of the material. Flax is said to be plentiful, but by introducing it

OILS, FATS & WAXES

slowly the industry should see steadier pricing.

Linseed oil is said to be plentiful now that the harvest has been completed. Buying is strong, particularly from the paint industry, says a source. It is expected that demand from this quarter will begin to slack off in the next few weeks, as the paint industry slows down for Winter.

OLIVE OIL — The price of this oil is quoted at $8.00 per gallon for edible Spanish material in drums, and Italian B-type is quoted at $5.40 to $5.50 per gallon. Buying is described as very light right now, as ample inventories are allowing customers to wait for lower prices, with the new Spanish crop due for harvest in a month or so. One dealer speculates that buyers are going increasingly to the practice of blending olive oil with less expensive oils such as soybean or cottonseed, for re-sale as "blended" or "10 percent" olive oil.

PALM OIL — The price of palm oil, very strong for the past several weeks, has started to ease down. The reason cited by most dealers and brokers is the fact that India sold back several thousand tons of palm oil, after having bought heavily in recent weeks. The move on India's part comes as part of its announced effort to boost sales of their domestic oils.

Seeing the "biggest buyer making a bearish move," as one source says, led players in the market to believe that prices would start to fall. "With India backing out of the market, I don't know where else Malaysia will put the oil," says a source, who notes that consumer interest in general has been low, since palm prices became too high to be competitive with other oils.

FATS & GREASES

TALLOW — Buyers in the tallow market are having a difficult time finding material being offered, sources say. The reason is that producers are holding back, waiting for a strengthening in price, according to an industry source. At the moment, prices are firm and are expected to come up on the better grades. Export interest at the Gulf is described as good, aided by an Egyptian purchase of 10,000 tons of tallow last week.

Glycerine Marketer Named by Lever Bros.

Unichema Chemicals Inc., Upper Saddle River, N.J., announced last week that beginning January 1, it will assume marketing responsibilities for all glycerine produced by the Lever Brothers Co.

Earlier this year, Lever Brothers opened a new plant facility for the production of high purity glycerine. The plant is designed to refine crude glycerine from both soap and fatty acid production. Dedicated storage facilities and rail cars will be maintained for national distribution.

Unichema Chemicals Inc. is the American marketing affiliate of a group of Unilever oleochemical companies operating worldwide under the business name Unichema International. Together, these companies annually produce more than 1 billion pounds of oleochemicals and catalysts.

Biotech Center Slated by US, State

University and government officials will break ground for the Center for Advanced Research in Biotechnology (CARB) this week at the Shady Grove Life Sciences Center, Rockville, Md.

Established by the University of Maryland, the Commerce Department's National Bureau of Standards, and Montgomery County, Md., CARB is a joint venture involving the university and the federal, state and local governments. Biotechnology companies are expected to join the CARB in research in areas of macromolecular structure and modeling.

AROMATIC ORGANICS

Coaltar Pitch Makers Say Market May Have Bottomed

Coaltar pitch producers say that import pressure, sluggish demand from the aluminum industry, and a relatively tight raw material picture have been making matters difficult for the industry this year. However, they say the market does appear to have stabilized in recent months.

In July, producers moved list prices down from $10 to $25 per ton to a level of $250 to $255 per ton for liquid material, and $260 to $265 per ton for solid material. Since then, list pricing has been stable, and selling prices, though possibly a bit on the soft side, have held fairly steady in most cases, producers say.

It is noted that import pressure is the most frequent contributor to significant price discounting. "Where imports are met, there is some decline" in pricing, says a producer, "but the basic price structure has been the same" since around mid-year. "Things are stable on the low side," concurs another producer.

Producers observe that price reductions in July were related to lower costs for crude tar. However, crude tar availability in the US is said to have tightened up noticeably over the second half of the year as a result of USX Corporation's steel strike. If the strike continues into next year, one coaltar producer says, crude tar pricing could be pressured upward.

IMPORT PRESSURE WORSENS

The pressure exerted on coaltar pitch pricing by imports has worsened this year, producers note. According to one producer, imports through the first eight months of the year accounted for 23.0 percent of the market, up from levels of 18.4 percent in 1985 and 15.7 percent in 1984.

The imports come primarily from Japan, China, Korea, Germany, and other European producers. Japan's penetration of the US market is said to have grown most notably, from 3.1 percent last year to 6.0 percent this year. The Chinese imports, handled by a US producer, reportedly are not as disruptive as the others.

Producers say their Northwest market has been particularly hard hit by imports. Despite a strengthening during the past several months of the values of Far Eastern and European currencies against the US dollar, overseas suppliers continue to sell aggressively here, some actually lowering their prices in dollar terms, producers say.

Coaltar pitch demand from the aluminum industry, the major end market, has reportedly stabilized, as the industry is "in a recovery mode," says a coaltar producer. "The aluminum market has pretty well bottomed out," says another producer, who notes that the decline, going back to mid-1984, was a long one. "I think we've seen the last of the plant closures" in the aluminum industry, he says.

Coaltar pitch producers say it is important for them that the aluminum industry experiences a healthy recovery because coaltar pitch's coproducts, most significantly creosote, are faring poorly. Creosote demand has suffered from cutbacks in railroad maintenance work, the weakening of the Gulf region's economy, and heavy imports (CMR, 8/4/86, pg. 13).

PRICES TRENDLINES

WEEK ENDING NOV. 7, 1986

CHANGES/UP
None

CHANGES/DOWN
None

AROMATICS INDEX

The Aromatic Organics Index reflects the prices of 14 representative materials in this sector and the quantity of each produced in 1985.

Nov. 7, 1986	167.84
Oct. 31, 1986	167.84
Oct. 10, 1986	167.84
Nov. 8, 1985	167.84

Chemical Prices Start on Page 30

BTX — Spot benzene is quoted between 85c. and 85½c. per gallon, relatively unchanged from the previous week. Contract pricing is between 87c. and 90c. per gallon.

A trader says "there are not a whole lot of barrels out there, but not a big demand for benzene, either." A considerable amount of activity was observed prior to November 1 contract adjustments. There typically is a lull in activity during the first part of the month following a price move, notes an industry source.

The spot toluene market is quoted at 65c. per gallon, equal to the low end of the 65c. to 67c. per gallon range of the previous week.

Xylene spot pricing is holding fairly steady at a 79c. to 80c. per gallon range after firming up the previous week. Demand has slackened off a bit recently due to weakness in the paraxylene market, comments a trader.

Uncertainty over the crude oil picture is said to be prevalent in the market. "No one knows what the new Saudi oil minister will do," says one source; many market players would like to see some direction in the market before making strategic decisions, he adds.

Domestically, the January 1 effective date for the new Superfund bill has the potential to play a role in the market during the coming

AROMATIC ORGANIC EXPORTS: SEPTEMBER

BUREAU OF CENSUS FIGURES IN POUNDS ON THE KEY AROMATICS.

		September		August	
		QUANTITY	$ VALUE	QUANTITY	$ VALUE
Alkylbenzenes, higher	lb.	3,681,565	1,386,484	1,023,125	1,818,329
Benzene, pure	gal.	342,592	532,589	1,294,371	1,234,853
Bisphenol A	lb.	6,942,442	3,816,494	8,398,086	4,291,442
Coaltar pitch of	lb.	43,961,987	5,974,382	5,750,960	780,370
Cresylic Acid	lb.	307,657	312,251	378,679	1,201,771
Cumene	lb.	15,711,468	2,125,908	44,078,727	5,350,197
Cyclohexane	lb.	9,121,905	1,750,097	15,177,662	1,987,673
Dichlorobenzenes	lb.	1,730,788	918,934	3,008,272	1,302,994
Dimethyl terephthalate	lb.	12,125,300	2,941,000	2,217,561	598,544
Dodecylbenzene	lb.	14,030,027	4,127,395	28,905,124	5,074,539
Ethylbenzene	lb.	27,360	28,596	1,977,831	651,698
Isophthalic acid	lb.	501,836	218,686	403,204	179,015
Maleic anhydride	lb.	287,720	127,577	424,109	181,655
Naphthalene, all grades	lb.	77,545	160,383	77,770	111,978
Phenol	lb.	21,487,624	3,025,535	19,965,188	4,680,691
Phthalic anhydride	lb.	5,066,569	1,209,082	6,164,402	564,282
Styrene monomer	lb.	90,707,777	16,044,248	109,868,555	18,683,988
Toluene, pure	gal.	2,210,565	2,445,428	5,116,163	3,642,772
Toluene di-isocyanates	lb.	13,169,862	10,370,634	10,717,865	8,345,831
o-Xylene	gal.	2,091,376	1,991,291	1,400,023	1,345,930
p-Xylene	gal.	8,735,378	11,614,686	16,393,498	22,147,824
Xylene	gal.	3,295,216	3,081,008	2,505,099	2,284,391

AROMATICS

weeks. An approximately 1.8c. per gallon tax on basic aromatics, to be paid by the ultimate consumer, could result in some stocking up on material prior to the effective date, sources note.

However, it is said that year-end state taxes on inventories could counter the incentive for consumers to stock up. One benzene buyer estimates that taxes will take away about two-thirds of the savings, rendering a stocking up plan impractical unless the material can be used promptly. Another source observes that, because inventory taxes are based on value rather than volume, low taxes because of low BTX values this year are likely to encourage high inventory levels regardless of the superfund bill.

MORPHOLINE — Producers say that the market's growth rate is between zero and one percent this year, as both main outlets, tire production and water treatment, are mature.

Producers see little reason for trends in the tire industry over the past few years to reverse themselves. These include greater use of higher mileage tires, smaller tires, imported tires, and imported cars with tires on them.

In the water treatment area, it is pointed out that there has been a consolidation movement that has resulted in a temporary slippage in volume.

Pricing is quoted at 94c. per pound in bulk, less a 6c. per pound temporary voluntary allowance. While it is acknowledged that some discounting exists off this level, it is said to have been fairly stable over the past several months.

TDI — Olin Corporation says it is increasing selling price levels on toluene di-isocyanate by 8c. per pound, effective December 1. New selling prices are not to exceed current list pricing which remains at $1.01 per pound in jumbo tankcars, f.o.b. shipping point, minimum freight prepaid and allowed.

TOLUENE SULFONYL CHLORIDE — Biddle Sawyer Corporation says it has raised the price of its p-toluenesulfonyl chloride, which the company imports from Japan.

The price moves up 47c. per pound to $1.65 per pound for direct shipment from the previous list level of $1.18 per pound which was established earlier this year. The effective date of the change is November 1. The new price for material from out of warehouse is $1.70 per pound.

Biddle Sawyer attributes the price increase to higher Japanese and European currency values against the US dollar, and to lower production levels. P-toluenesulfonyl chloride is a byproduct of saccharine production, which has been in decline.

Du Pont Grooms

Continued from Page 7

envisioned for the newly modified resins, Du Pont expects that it will be doing a lot of alloying, blending and reinforcing to tailor them to particular uses and needs, Mr. Gillespie said.

Dr. Pappas said that the attractive price and good performance characteristics will generate sales of about $250 million for the resins worldwide within ten years. In addition to auto body parts, potentially large markets include printed circuit boards, microwave ovens and sports equipment, Dr. Pappas said.

A Du Pont plant at Chattanooga, Tenn., which previously produced polyester resins for fibers, has now been converted to a 15-million-pound-a-year development facility for polyarylates. This one plant is larger than all installed capacity of competitors, Dr. Pappas claims.

World-scale manufacturing operations, using existing facilities and Du Pont's proprietary low-cost polyarylates process, should come on stream before 1990, the Du Pont executive said.

When world-scale facilities come on stream, Du Pont expects to be able to lower the price to a level that will be competitive with prices of premium grades of polycarbonates, he said.

Pfizer Picks Ashland As Its Distributor

The Chemical Division of Pfizer Inc. has appointed Ashland Chemical Company as its national distributor of food and beverage ingredients and specialty chemicals, supplementing Pfizer's own direct sales and distribution programs

Ashland operates seventy-four chemical distribution centers in the US.

Warner-Lambert

Continued from Page 7

oped in clinical studies for three indications: symptomatic premature ventricular contractions, ventricular tachycardia, and postinfarction arrhythmias. Results to date indicate that "Pirmenol" is an effective antiarrhythmic drug with an excellent safety profile, the company says.

The company said that it is continuing its research program in the area of coronary artery disease, with principal concentration on the lipid-regulating therapies. The company's lead compound in this area, "Lopid" (gemfibrozil), is currently marketed in 36 countries, including the US, where it is the market leader in its category.

The company also said that trimetrexate has potential use in the treatment of opportunistic infections such as toxoplasmosis and pneumocystis carinii pneumonia. Patients with AIDS are particularly susceptible to such opportunistic infections. Early experimental studies in AIDS patients at the National Instituces of Health and the National Cancer Institute indicate a 70 percent success rate with patients suffering from pneumocystis carinii when treated with trimetrexate in combination with the commercially available folate substitute leucovorin.

The company said it is continuing to conduct clinical studies to extend its gemfibrozil franchise beyond patent expiration in 1989. "Lopid" is also the subject of a continuing study in Finland.

In the field of cancer chemotherapy, the company said it has a number of compounds in various stages of clinical investigation worldwide. One of these compounds, trimetrexate, has shown efficacy in phase II multicenter clinical trials against non-small cell lung cancer, which accounts for 75 percent of total lung cancer cases. It also has shown early efficacy against other solid tumors.

US–Canada Trade

Continued from Page 4

sions to both the US and Canada; the elimination of non-tariff barriers, such as inadequate protection of intellectual property; and the establishment of a binding dispute settlement mechanism.

In addition, Mr. Foveaux says US import remedy laws and procedures should not be suspended under any agreement with Canada.

Exports to Canada account for about 11 percent of the US chemical industry's total sales, and are valued at $22 billion annually.

"Although it's one of the few industries still providing a trade surplus to the nation's overall growing trade deficit, that surplus is decreasing annually," Mr. Foveaux told Congress last Summer.

The Commerce Department estimates the chemical trade surplus will diminish again this year. US chemical trade with Canada leads all other countries.

The talks between the North American neighbors began a year ago. Major sticking points include such issues as how to treat the flow of pharmaceuticals, lumber and other goods.

ALIPHATIC ORGANICS

Methanol Excess

Continued from Page 3

quently, Du Pont, in partnership with Phillips, reopened its 250-million gallon plant in Beaumont in the Spring. This new working capacity will boost US methanol production to 1.13 billion gallons this year, according to one seller, up from just over 900,000 gallons in 1985.

At the same time, imports continue to flow into the country. Imports topped 350 million gallons in 1985, and are projected to climb to just under 390 million gallons this year. One observer says this imported material is making up the bulk of the inventory overhang.

This supply surge is coming at a time of outstanding growth for MTBE. Sources queried estimate that between 200 million gallons and 250 million gallons of methanol will be consumed in producing MTBE this year, up from under 100 million gallons last year. And the pace of growth is not expected to slacken. For next year, estimates for methanol consumption in MTBE production range from 280 million gallons to 350 million gallons.

This growth, however, has been partly offset by reduced use of methanol fuel blends this year. The revocation of the Petrocoal waiver last Spring, coupled with Arco's decision to cease marketing "Oxinol" in April has cut into methanol consumption. James Crocco, of Houston-based Crocco Associates, projects that methanol use in fuel blends will fall from 70 million gallons last year to 23 million gallons in 1986. He projects the total will further decline to 17 million gallons next year, unless the recent removal of restrictions on the "Du Pont waiver" by Environmental Protection Agency spurs additional use.

INDUSTRY REACTION MIXED

Industry reaction to the re-introduction of the Du Pont waiver was mixed, however. Most sources said the EPA decision would not have a significant near term impact on methanol sales. The waiver allows a gasoline mixture containing 5 percent methanol and 2.5 percent co-solvent alcohols (mainly ethanol), provided the blender adheres to an evaporative index designed to limit increases in fuel volatility.

For years, the use of methanol in fuel blends has come under sharp attack from some auto makers and oil companies because of its corrosiveness. Sources agree that convincing consumers that methanol is a safe, effective fuel component is critical to the alcohol's success as an octane ingredient.

Another key to methanol's future as a fuel ingredient is the long-term octane outlook. Several sources note that gasoline blenders' lead credits are running low, and the price for octane components such as toluene and MTBE, are poised to increase sharply. Several sources indicated that, should supplies for these octane components get much tighter, independent refiners and blenders, and perhaps some of the major refiners, will have to turn to oxygenates as sources of octane.

Despite a looming octane shortage, most analysts say a push towards blending methanol into fuel will be slow in coming. "Methanol still carries a little stigma, and not many (gasoline makers) are eager to use it," one observer states. One of the keys to success, Mr. Crocco, says, is changing the perception of methanol as a gasoline extender to that of an octane enhancer.

In addition to the psychological obstacles, methanol marketers must overcome several logistical hurdles to putting methanol into fuel. Distribution is one factor. Methanol cannot be shipped through pipelines, so sources see its markets limited to coastal areas where it can be moved in bulk on barges, from the plants and the landing points of the imports. In addition, blenders' tanks must be carefully dried out, the butane removed, and the vapor pressures changed.

Another problem with the Du Pont waiver, sources note, is monitoring the fuel blends to make sure small blenders don't pump in too much low-cost methanol. Mr. Crocco says there is nobody to police the waiver, and there are people "who will misuse and abuse it." A methanol seller who remembers the abuses taken in the past says "the people who got us in trouble the first time will come back," blending fuels with illegally high methanol contents.

Ironically, Du Pont says it won't pursue the fuel methanol business, and Arco appears to

PRICES TRENDLINES

WEEK ENDING NOV. 7, 1986

CHANGES/UP
None

CHANGES/DOWN
None

ALIPHATICS INDEX

The Aliphatic Organics Index reflects the prices of 20 representative materials in this sector and the quantity of each produced in 1985.

Nov. 7, 1986	222.80
Oct. 31, 1986	222.80
Oct. 10, 1986	222.80
Nov. 8, 1985	222.80

Chemical Prices Start on Page 36

ALIPHATIC ORGANIC EXPORTS: SEPTEMBER

BUREAU OF CENSUS FIGURES IN POUNDS ON THE KEY ALIPHATICS

		SEPTEMBER		AUGUST	
		QUANTITY	$ VALUE	QUANTITY	$ VALUE
Acetic Acid	lbs.	12,884,685	1,286,077	27,601,530	2,644,858
Acetone	lbs.	1,892,429	565,661	4,062,734	1,008,525
Acrylonitrile	lbs.	78,799,461	17,952,481	72,663,326	17,155,645
Adipic Acid	lbs.	8,219,396	3,538,661	4,797,510	2,282,302
Butadiene	lbs.	13,060,939	2,550,179	7,328,167	1,090,914
Butanol	lbs.	11,125,548	2,234,186	12,752,313	2,681,302
Butyl Acetate	lbs.	4,789,951	1,174,910	6,073,316	1,626,853
Caprolactam	lbs.	3,390,136	2,065,648	3,610,611	1,952,090
Chlorinated Hydrocarbons	lbs.	19,384,416	2,642,533	5,659,243	1,280,197
Ethanolamines	lbs.	18,904,732	4,893,247	19,491,642	5,773,419
Ethyl Acrylate	lbs.	5,662,048	1,288,544	6,521,722	2,385,115
Ethyl Alcohol	gals.	68,223	165,013	53,001	139,246
Ethylene Dichloride	lbs.	2,255,202	205,453	24,350,152	2,129,094
Ethylene Glycol	lbs.	45,200,357	6,992,953	31,295,146	5,100,114
Formaldehyde	lbs.	1,249,065	225,495	1,017,235	168,834
Glycerine (Crude)	lbs.	502,971	522,880	151,871	78,874
Glycerine (Refined)	lbs.	1,134,269	1,165,588	1,266,313	1,007,938
Glycols	lbs.	4,244,303	2,620,610	4,631,901	3,076,417
Methanol	gals.	3,475,083	929,149	1,609,043	562,959
Methyl Ethyl Ketone	lbs.	8,439,975	1,689,364	9,292,428	1,970,850
Methyl Methacrylate	lbs.	5,421,861	2,171,839	9,697,715	3,800,521
Methylene Chloride	lbs.	10,372,033	1,724,765	5,046,420	885,367
Perchloroethylene	lbs.	1,610,653	240,388	9,728,000	1,247,405
Polyethylene Glycol	lbs.	777,031	584,389	1,368,162	922,693
Polypropylene Glycol	lbs.	13,376,009	7,333,384	15,379,597	6,855,248
Propyl Alcohol	lbs.	20,872,921	3,838,697	21,858,608	3,697,120
Propylene Glycol	lbs.	6,136,086	1,878,109	7,992,688	2,029,652
Propylene Oxide	lbs.	22,943,887	9,000,095	26,196,312	9,868,218
Trichloroethylene	lbs.	6,669,943	1,367,264	2,738,111	630,980
Vinyl Acetate	lbs.	67,152,686	13,269,263	52,890,949	9,455,964
Vinyl Chloride	lbs.	98,162,287	14,911,435	167,001,713	21,704,04

ALIPHATICS

have given up on "Oxinal" for the time being. Apparently, blending methanol into motor fuel won't be attempted on a large scale, even considering the growing need for octane, at least through 1987, sources indicate.

Meanwhile, producers must push for better methanol margins. While supply currently outstrips demand, one producer says things have happened or will happen to improve the supply-demand balance in 1987. For one thing, he estimates that methanol consumption in MTBE will grow by another 100-million gallons next year. In addition, Sterling Chemical says it will shut its 100-million gallon methanol plant in Texas City, Tex. early next year. The producer also says USI, who purchased Du Pont's Deer Park plant, is unlikely to re-open the facility before mid-1987. The forced shutdown of a methanol plant in Malaysia will help reduce the import glut, and lower cost natural gas has helped push US methanol exports to over 230 million gallons through August, three times higher than last year.

ETHYLENE — Producers say the industry's October 2c per pound price initiative was partially successful, earning them between ½c. and 1c. per pound. Prices are now quoted between 14c. and 15c. per pound, with 14½c. being the most common figure.

Contracts will be up for negotiation at the end of November and December, though there is doubt if producers will gain significantly more until the end of the year.

Monthly contract negotiation seems to have evolved during the second half of this year. One producer explains that traditionally prices were set quarterly, but were often renegotiated downward after that, the quarterly price acting only as a price ceiling.

Now, he says, with sellers in a more advantageous position, buyers have conceding to allow the monthly negotiation to swing in either direction, depending on market conditions. One producer believes September marked this year's first full-fledged anti-quarterly negotiation. "Quarterly pricing in a volatile feedstock market is not enjoyable," one marketer says.

The coming months look to be seller dominated. Recently published NPRA figures for third quarter production indicate an industry operating rate in the high-90's. One producer says the industry's current 1.2 billion pound inventory represents only a 13 day supply. Consequently, inventory building is likely to be the trend for the next three to six months in preparation for turnarounds in the second quarter of next year.

PERCHLOROETHYLENE — Support is gathering behind Dow Chemical's 2c.-per-pound price initiative (CMR, 11/3/86, pg. 3) aimed at December 1.

Occidental Chemical says it is increasing off-schedule perchloroethylene prices by 2c. per pound, effective December 5. Vulcan Materials has indicated it will support the move although it has not made an official announcement.

One source notes that perc has traditionally been priced in the same range as trichloroethylene, as production costs are about the same. Currently, however, trichloroethylene prices are around 22c. per pound, f.o.b. tanks, while perc is closer to 15 or 17c. per pound, he says.

Producers say that DuPont's decision to purchase rather than produce chlorinated solvents has not tightened the market considerably, since the company contracted for its material beforehand. Producer operating rates are said to be somewhat higher, however, and the DuPont closure should lend some support to the perc move.

Also supporting the increase is the effect of the dollar's weakening on import material prices. While producers disagree on whether import volume has been affected, all feel there is pressure on importers to increase prices likewise.

Meanwhile, chlorinated solvents producers note that an October 1 price increase of 2c. per pound on methylene chloride seems to be holding successfully.

IMC Completes Sale Of Industrial Unit

International Minerals & Chemical Corporation has completed the sale of substantially all of the company's industrial products business to Applied Industrial Materials Corporation headed by president and chief executive officer, Charles P. Gallagher and the New York City Investment Firm of Weiss Peck & Greer.

Mr. Gallagher was formerly president and chief executive officer of Susquehanna Corporation.

Terms of the sale, originally announced last July, were not disclosed.

Included in the transaction are IMC's former mines, plants and organization involved in the production and marketing of carbon products, ferroalloys and metals, industrial minerals and quartz products.

George D. Kennedy, IMC chairman and chief executive officer, says "The divestiture of the industrial products business is another step in IMC's restructuring efforts."

Vinyl Chloride

Continued from Page 5

radioactive air pollutants, and also conflicts with past decisions of the appeals court.

He said NRDC will probably ask the full 11-member appeals court to review the decision.

When the 1984 Supreme Court ruling "is taken to this extreme, it's difficult to think of what Congress could say to eliminate ambiguity," Mr. Doniger remarked. "It's hard to imagine a statute that is clearer than the Clean Air Act when it says health is the only factor to be considered."

EPA says the 1976 vinyl chloride regulations would be easier to enforce than the current law and would therefore be more protective of public health.

Under current rules, vinyl chloride discharges are prohibited except in emergencies that cannot be prevented by the producing plant. If emissions can be prevented, they are not considered emergencies and are subject to penalties.

EPA has proposed that instead of prohibiting all but emergency releases, plants should be allowed four to seven discharges per year, depending on the size and location of the plant.

EPA has regulated vinyl chloride since 1975 and says that as a result of its rules, airborne emissions of the cancer-causing chemical from the 50 US production plants have declined from 105,000 tons annually to less than 5,400 tons. Cancer causes were estimated to have declined from 11 to one-half per year.

US-Canada Trade

Continued from Page 4

sions to both the US and Canada; the elimination of non-tariff barriers, such as inadequate protection of intellectual property; and the establishment of a binding dispute settlement mechanism.

In addition, Mr. Foveaux says US import remedy laws and procedures should not be suspended under any agreement with Canada.

Exports to Canada account for about 10 percent of the US chemical industry's total sales, and are valued at $22 billion annually.

"Although it's one of the few industries still providing a trade surplus to the nation's overall growing trade deficit, that surplus is decreasing annually," Mr. Foveaux told Congress last Summer.

The Commerce Department estimates the chemical trade surplus will diminish again this year. US chemical trade with Canada leads all other countries.

The talks between the North American neighbors began a year ago. Major sticking points include such issues as how to treat the flow of pharmaceuticals, lumber and other goods.

But Mr. Yeutter called them "transitory disputes" that should not prevent agreement on broader trade issues. He said he believes the negotiations can be concluded in time for early 1988 Senate ratification of an agreement.

Mr. Yeutter said tariffs dominated each nation's concern during the talks. "Obviously we'd just like to eliminate duties on both sides of the border," he said.

TPA Seen as Aid Against Lung Clots

Scientists at two Boston hospitals say that clinical tests on an experimental drug used to treat heart attacks also works better against lung blood clots than treatments currently in use.

Researchers at Brigham and Women's Hospital and Beth Israel Hospital used tissue plasminogen activator, or TPA, produced by Genentech Inc. of South San Francisco, Calif. in the experiment. While many companies are working to develop TPA drugs, Genentech is generally considered the market leader.

A spokeswoman for Brigham and Women's Hospital says that the experimental drug dissolved the lung clots in 37 out of 40 patients tested. "Heparin," the drug usually used, has a success rate of only about 5 percent.

Two other drugs, urokinase and streptokinase, are more effective than "Heparin," but are not often used because of side effects.

National Institue of Health figures show that more than 300,000 Americans are hospitalized each year for lung blood clots and the disorder claims 50,000 lives annually.

TPA has been tested since 1983 because of its ability to dissolve clots that cause heart attacks. The drug is currently under investigation by FDA, and approval is expected by June of next year.

Organosulfur Facility Is Set by Pennwalt

Pennwalt Corporation's board of directors has approved the expansion of the Organic Chemicals Division's methane sulfonic acid/methane sulfonyl chloride plant in Wyandotte, Mich., by 6 million pounds per year.

The plant will also produce ethane sulfonic acid, ethane sulfonyl chloride and other specialty organosulfur products.

Domestic Glycine Seen Firmer; Import Prices Also Increasing

Domestic glycine prices have firmed throughout 1986, and are expected to continue doing so for at least part of 1987, according to producers. Imported glycine is also said to have firmed.

The current trend reversed a pattern that resulted after capacity expansion and a strong US dollar drove pricing downward in 1983. The capacity expansion was considered a contributory factor because demand never increased as much as was expected.

List prices for domestic glycine remain at $2.12 per pound for USP grade, and $1.88 per pound for technical grade. The two domestic producers are Chattem Chemicals & W.R. Grace. Imports, particularly from Japan, play an important role in the market place.

Domestic spokesmen say that actual selling prices vary, but are commonly between five and ten percent below list prices. One spokesman claims that sales at 10 percent below list are becoming rare.

WEAK DOLLAR CITED

The US dollar's weakening is cited as the main reason for firming prices. Producers complain that recent selling prices have been too low for a healthy profit. Because of the dollar, importers are also raising their prices, and one importer concedes that his company's prices are close to those of the domestic companies.

"There's still a slight premium for domestic material," he says, but admits that the difference is not great. He thinks, however, that import pricing will remain stable for the rest of 1986 and the beginning of 1987.

Glycine imports rose by about 57 percent through August 1986, compared to the same period in 1985. Through August, 1.1 million pounds of glycine entered the US, compared to a little less than 700,000 pounds through August 1985. Japan, the main exporter to the US, has increased US sales to 995,000 pounds this year, up from 626,000 pounds. Importers claim that demand has been healthy, despite the dollar's devaluation.

BHT — PMC Specialities Group, Inc. is increasing its prices for both the technical grade and food grade of BHT. PMC markets the technical grade under the name "CAO-1" and the food grade under the name "CAO-3."

The increases are 5c. per pound, effective January 1. A PMC spokesman says that import stabilization is allowing for the increase. BHT's price last increased about two years ago, says the spokesman.

POTASSIUM & SODIUM HYDROXIDE — Mallinckrodt, Inc. recently raised its prices for both potassium hydroxide and sodium hydroxide. Effective November 1, the increases range from 2 to 8 percent, depending on quantity.

New prices for potassium hydroxide, NF pellets, are $1.33 per pound for a truckload, and $1.69 per pound for one drum. Prices for the ACS pellets are $1.49 per pound for a truckload, and $1.89 per pound for one drum.

Truckload quantities of sodium hydroxide in the form of NF pellets, are $1.06 per pound, while one drum costs $1.35 per pound. The ACS pellets cost $1.09 per pound in truckload quantities, and $1.38 per pound for one drum.

For both products, truckload quantities are 24,000 pounds, while each drum contains 110 pounds.

According to a Mallinckrodt spokesman, prices are increasing for the first time in about two years, and are doing so now because of rising manufacturer costs. The spokesman estimates current growth between 3 and 6 percent annually.

SORBATES — Mitsui & Company is raising its prices for both potassium sorbate and sorbic acid, effective December 1. Mitsui is the exclusive US distributor for Daicel Chemical Industries, Ltd., and Nippon Gohsei.

Prices for both products will be rising 30c. per pound. Twenty thousand pounds or more will cost $2.50 per pound, delivered; 10,000 pounds to 19,900 pounds will cost $2.60 per pound, delivered; 3,000 pounds to 9,900 pounds will cost $2.70 per pound, delivered; 1,000 pounds to 2,900 pounds will cost $2.80 per pound, delivered; and less than 1,000 pounds will cost $2.80 per pound, f.o.b. closest warehouse.

A Mitsui spokesman claims that increased costs from suppliers prompted the increase. Prices for these products last increased in May. Other players are currently examining the increases.

VITAMINS — BASF Wyandotte and Duphar Nutrition are raising their prices for several vitamins, effective immediately.

Both companies are raising their B_6 price

PRICES TRENDLINES

WEEK ENDING NOV. 6, 1986

CHANGES/UP

Ascorbic Acid, $1 per kilo
B_1, $2 per kilo
B_2, $2 per kilo
B_6, $3 per kilo
D-cal pan, $1 per kilo

CHANGES/DOWN

None

DRUGS INDEX

The Drugs & Fine Chemicals Index reflects the prices of 10 representative materials in this sector and the quantity of each produced in 1985.

Nov. 6, 1986	211.16
Oct. 31, 1986	211.16
Oct. 10, 1986	211.16
Nov. 7, 1985	211.16

Chemical Prices Start on Page 36

BOTANICAL DRUG IMPORTS: AUGUST

CENSUS BUREAU REPORTS ON SELECTED BOTANICAL DRUGS.

		AUGUST		JULY	
		QUANTITY	$ VALUE	QUANTITY	$ VALUE
Agar	lb.	241,432	1,431,588	116,242	1,087,368
Balsams, nat. nspf.	lb.	14,622	88,367	15,084	72,368
nat. styrex	lb.	3,120	18,329	43,343	118,952
nat. tolu	lb.	3,527	19,207	3,307	18,272
Crude animal glands, organs and parts	lb.	6,549	333,862	40,902	50,401
Ginseng roots	lb.	199	7,901	3,631	164,498
Ginseng, adv.	lb.	35,791	512,831	14,178	267,756
Glycosides	lb.	19,219	461,469	29,453	460,153
Gum, Arabic	lb.	766,688	1,562,932	582,704	1,076,969
Gum, Guar, nat	lb.	1,671,770	806,598	5,869,472	2,911,425
Gum, Locust Bean	lb.	369,539	1,862,841	398,173	2,183,503
Gum, Karaya, nat.	lb.	70,493	80,248	161,984	141,526
Gum, Tragacanth, nat.	lb.	4,410	19,506	832	6,596
Licorice root	lb.	35,181	34,182	3,306	4,484
Natural crude drugs, bile, other animal secretions	lb.	6	2,711	—	—
Natural crude drugs, nspf.	lb.	841,020	1,065,358	813,996	4,243,730
Natural adv drugs, animal origin, nspf.	lb.	4,007	44,680	12,484	40,310
Natural adv drugs, misc.	lb.	346,560	1,176,609	336,591	1,775,271
Pectin	lb.	266,680	1,035,320	258,282	1,002,382
Poppy straw extract	lb.	—	—	—	—
Psyllium seed husks	lb.	674,613	858,308	987,071	966,740

DRUGS & FINE CHEMS

to \$36 per kilogram and their B_5 price to \$12.50 per kilogram. Additionally, BASF notes the following increases: ascorbic acid and sodium ascorbate, \$11 per kilogram; both forms of B_1, \$33 per kilogram; and B_2, \$48.50 per kilogram.

Duphar is also announcing another vitamin increase, effective November 15. Vitamin D_3 resin will cost .0166c. per million units (mu) for 8 kilograms and more, while orders less than 8 kilograms will cost .02c. per mu.

Many of their increases are similar to those announced last week by Hoffmann-La Roche and Takeda USA (CMR, 11/3/86, pg. 22). Currency exchange rates are cited as the major reason for price increases.

CPC Buys Back

Continued from Page 9

capital expenditures in keeping with the new objectives," a spokesman for CPC stated.

By mentioning the grocery products business — which includes "Hellman's" mayonnaise and "Skippy" peanut butter — for particular approbation, CPC encouraged the speculation that it might sell off its corn milling operations — the largest of their kind in the world. CPC is also the leading producer of high-fructose corn syrup and derivatives.

Directors of CPC authorized the repurchase initially of up to 10 million of the company's 48.7 million shares of outstanding common stock.

Since the avowed purpose of the restructuring was to maximize shareholder value rather than to make it possible to buy off the Perelman, it is expected that CPC will go ahead with the program, and that it will complete at least the balance of the 10-million share repurchase authorization.

CPC said that while the share buyback will be financed at first through borrowing, the company intends ultimately to reduce or eliminate the debt through the disposition of assets resulting from the restructuring program and to retain substantial financial flexibility for future strategic development.

James R. Eiszner, CPC's president and chief executive officer, said that the decision to authorize the repurchase of the 10 million shares "was made after considering the prospects based on the investments our company has made in recent years and the confidence we have in both the immediate and long-run benefits of the restructuring program."

National Distillers Completes Purchase

National Distillers & Chemical Corporation has completed its purchase of Enron Chemical Company, the petrochemicals subsidiary of Enron Corporation. The purchase price was approximately \$570 million cash and the assumption of approximately [illegible] million of industrial revenue bond indebtedness.

NDCC chairman, John Hoyt Stookey stated, "This acquisition signals our commitment to the chemical industry and makes NDCC the nation's largest polyethylene producer with an annual capacity of [illegible] pounds.

Alpha Tocopherol

Continued from Page 5

esses, but also from external sources, such as polluted air, cigarette smoke and certain foods. While the minimal exposure to nitrosamines caused by eating or cooking bacon has not in itself been shown to be harmful, the body overall is exposed to numerous toxic insults from various sources over time. "Consequently," Mr. Mergens notes, "anything that can be done to reduce our overall exposure to toxic compounds would certainly be desirable."

Vitamins as "protectors" — A broader significance of the research with bacon, Mr. Mergens says, is that it provides further evidence emphasizing the important antioxidant properties of vitamins such as C and E, a subject of considerable scientific interest regarding cellular protection and health.

Roche began studying the potential roles of vitamins in inhibiting nitrosamines during bacon frying in the early 1970's. "It was known at that time that vitamin C was used in bacon as a curing accelerator," Mr. Mergens explains. "We later learned that vitamin C also partially inhibited the formation of nitrosamines in the lean portion of the meat, but not in the fatty portion."

"Since we knew that alpha tocopherol, or vitamin E, acts as a fat-soluble antioxidant in humans, animals and plants," Mr. Mergens explained, "we investigated its potential to inhibit nitrosamine formation in bacon by reducing the oxidation that occurs in the fatty portion of the meat during frying, and it worked very well," he said.

Dow, Monsanto

Continued from Page 9

both by internal development and acquisitions, the latter including a unit from Imperial Chemical Industries, Ltd., along with acquisitions of MacArthur PLC and Jackson Company, the analyst states.

A strong cash flow should allow the final payment of 1 million UK pounds to be made to ICI in May of next year without recourse to further borrowing, it is stated.

In recommending purchase of Dow's shares, Mabon, Nugent's Mr. Reitzes notes the growing probability that commodity chemical price increases initiated on October 1 will stick.

Mr. Reitzes estimates that part of the proposed price increase will contribute between 60 cents and 75 cents per share to Dow's 1987 earnings.

Mr. Reitzes reaffirms his forecast that Dow's earnings will rise to \$3.85 in 1986 and \$4.75 in 1987, as compared with net operating income of \$2.50 in 1985.

Messrs. Coates and Penny Swales of Barclays de Zoete Wedd expect Dow to earn around \$3.75 in full-year 1986. They note the increasing improvement in commodity chemical operating rates.

Hoechst Launches

Continued from Page 3

Celanese spokesman Herb Reed, but Mr. Macomber is expected to depart once the merger is completed. He will walk away with the proceeds from his current holdings in Celanese stock — about 75,000 shares — plus additional compensation.

American Hoechst says the acquisition is being financed through internally generated funds and private borrowings. While analysts do not foresee Hoechst selling off large chunks of Celanese to pay for the purchase, it is anticipated that some assets might be sold.

Les Ravitz, chemical analyst at Salomon Brothers, says there is "no question" that Hoechst will sell off some Celanese assets, but he does not look for any "fire sales."

Analysts speculate that some commodity lines, such as methanol and formaldehyde, might be sold. Also mentioned is Celanese's 57 percent equity stake in Celanese Canada and its methanol project in Saudi Arabia. Last year, Celanese took a $21 million write-down of the value of its methanol venture in Saudi Arabia. The company also placed its Clear Lake, Tex., methanol plant on standby.

Commenting on the proposed merger, Mr. Macomber said last week that "it provides both companies with an unprecedented opportunity to accelerate and expand their growth in world markets." Celanese, he said, "gains access to new technologies, research and development expertise and new product lines."

Dieter zur Loye, president and chief executive of American Hoechst, observed that the two firms "practice complementary categories of chemistry which fit smoothly together."

The Hoechst subsidiary posted sales last year of $1.7 billion, with fibers and film accounting for $623 million of the total, followed by specialties ($422 million), petrochemicals and plastics ($316 million) and health-care and the company's Agri-Vet unit ($333 million combined).

Celanese reported sales last year of approximately $3 billion, with fibers accounting for roughly half of total sales, followed by chemicals and specialty products.

Hoechst AG recorded world sales of $[illegible] billion in 1985 and $8.8 billion in the first half of this year. The company is approximately 24 percent-owned by Kuwait.

Following the merger announcement last week, Standard & Poor's affirmed its "A-1" commercial paper rating for Hoechst Capital Corporation, noting that the parent firm in Germany has "built sufficient debt capacity over the past several years to make such a large acquisition without sacrificing credit quality." Standard & Poor's also said the "maturity and cyclicality" of Celanese's commodity business "poses less of a vulnerability in the context of Hoechst's global chemical business."

S&P put Celanese's various debt ratings on its "CreditWatch," which means the ratings may be raised, lowered or affirmed.

Animal Drugs Set for Review

An international committee of veterinary drug experts has recommended review of several commonly used livestock drugs to establish international agreement on the safety of residues from the drugs in food products, according to a USDA official.

"The Codex Committee on Residues of Veterinary Drugs in Food has established a list of seven animal drugs for which the committee recommends international scientific review in order to reach agreement on allowable levels of residues from the drugs in foods," said Lester M. Crawford, associate administrator of USDA's Food Safety Inspection Service and chairman of the committee. "The list includes growth-promoting hormones, the antibiotic chloramphenicol, sulfa drugs and four other classes of drugs."

Mr. Crawford said that, in compiling the list, the Codex Committee considered any substance administered to agricultural animals, including hormones and externally applied pesticides, that could leave a residue in food products such as meat, milk, eggs or fish. He said the initial list includes the seven substances which the committee believes deserve top priority, and that the committee may recommend other drugs for review at a later date.

The Codex Committee on Residues of Veterinary Drugs in Food is a new committee established by the Codex Alimentarius Commission, an international group of experts who work toward the adoption of common international food standards to protect consumers and promote fair trade.

The Codex Committee held its first meeting, attended by 175 representatives from 40 countries and 10 international organizations, last week at the US State Department. Both the commission and the committee are supported and funded by the United Nations' Food and Agriculture Organization, the World Health Organization and participating nations.

Mr. Crawford said the development of the committee's list is a "significant" first step toward international agreement on veterinary drug issues, including the establishing of common allowable levels of veterinary drug residues in food. Currently, there exist wide variations among countries in animal drugs allowed and in the maximum residues permitted.

"Because of advances in science, we can now detect substances that are present in food in parts per billion or even parts per trillion in some cases," Mr. Crawford said.

"Unfortunately, some countries use this capability to prohibit the use of certain drugs whose residues can be detected but are not likely to be harmful, while other countries may allow the entry of products containing residues of substances almost universally viewed as unsafe. There is a great need for international standardization," he said.

Centocor Plans New Partnership

Centocor, Inc., Malvern, Pa., says it plans to form a research and development limited partnership to fund the development and clinical testing of a therapeutic product for the treatment of hospital-based gram negative infections and three cancer imaging products.

The partnership intends to fund the development of these products with the private placement of approximately $50 million of limited partnership interests to selected qualified investors. In connection with the offering of the limited partnership interests, Centocor will issue warrants to purchase approximately 1.7 million shares of Centocor Common Stock.

Avery Raises $1-Billion-Plus For Acquisition

Avery Incorporated, a diversified manufacturer headquartered in New York, has raised more than $1 billion through a private placement of debt and equity securities to finance its previously announced acquisition of Uniroyal Chemical Company.

As a result of the transactions, Triangle Industries, Inc., which previously owned about 20 percent of Avery's shares, will have a total participation of 45 percent in Avery's common stock, but Avery will not be a subsidiary of Triangle and the latter will have no responsibility for the liabilities of Avery and its subsidiaries.

In the first step, Triangle made a further equity investment in Avery of $75 million in the form of preferred stock, plus warrants to purchase 40 million additional shares of Avery common stock at $1.875 per share.

In addition, Avery issued $100 million principal amount of 10 percent convertible subordinated debentures due 1996 which are convertible into Avery common stock at $3.25 per share.

Uniroyal Chemical Holding Company, a wholly-owned subsidiary of Avery, issued $350 million principal amount of 12.25 percent subordinated notes due 1996.

Uniroyal Chemical Acquisition Corporation, a wholly owned subsidiary of Uniroyal Chemical Holding, issued $210 million principal amount of 11.5 percent subordinated notes due 1995 and $350 million principal amount of increasing rate senior notes due 1988 bearing an initial annual interest rate of 9 percent.

In addition, Avery issued warrants to purchase 12 million shares of Avery common at $2.50 per share to Drexel Burnham Lambert Incorporated, which acted as advisors to Avery in connection with the acquisition of Uniroyal Chemical and the related financing.

Avery intends to seek shareholder approval to increase its authorized capitalization, from 15 million common shares currently to at least 150 million.

As a result of this financing, Uniroyal Chemical Holding has approximately $[illegible] million in excess cash to be used for general corporate purposes, including possible future acquisitions. Also, it is expected that the $[illegible] million of increasing rate senior notes will be financed in the near future with a bank loan or through another private placement of debt securities.

Huls Markets IPDI In Bulk to the US

Huls, the West German chemical manufacturer, recently made its first bulk shipment of isophorone diisocyanate (IPDI) from Germany to the US.

The company has manufactured the material in Europe for 30 years and says it is the sole supplier of IPDI in the world.

IPDI is used in the synthesis of light-stable and weather-resistant polyurethane coating systems. Applications include conventional and high-solids two-component paints and lacquers, solvent-free PU compounds and coatings, powder coatings, solvent-based blocked PU systems for baking enamels and physically drying PU resins for coating flexible substrates.

Oils Meeting Set for November

The tenth International Congress of Essential Oils, Fragrances and Flavors will be held next week in Washington, DC from November 16 through November 20. Participants from every major producing area across the globe will convene, including shippers, [illegible]ers and consumers.

"This meeting will permit a closer exchange of information on usage on one hand and production on the other," says Eric [illegible]ell, member of the planning and budget committees for the Congress.

The Congress of Essential Oils, Fragrances and Flavors meets every [illegible] years. The last two were held in India and Japan.

PERFUMES & FLAVORINGS

Spearmint Market Weakening From Imports And Oversupply

Chinese 60 percent carvone spearmint oil dropped 10 cents per kilo last week from $10.10 to $10 per kilo, cost and freight insured, New York. The decline signalled an oversupply situation, according to industry sources, that could affect prices through most of 1987.

"The Chinese generate enormous amounts of material," says an essential oils importer. "They are forever looking for an expanding market." Though the usages for spearmint oil are slowly expanding in line with consumption of such items as soaps and toothpastes, he adds, it remains a very limited market.

The Chinese compete with the domestic US spearmint growers for a large but saturated market. Prices for the Chinese 80 percent, a higher quality, redistilled version of the 60 percent but with fewer terpenes and more carvone, undersell the US Far West Native spearmint oil on the spot market by about $1 per pound. The two materials don't compete head to head for most applications, says an essential oils broker, but they do when slight flavor differentials may not be noticed.

An essential oils dealer emphasizes that the Chinese prices have been coming down for some time: "The shipping prices have eased more than $2 per kilo over the last year, down from $12 to $12.50 per kilo."

US producers look for prices of all domestic spearmint oils to weaken. One of the primary reasons for the outlook is an oversupply situation. "There is still a tremendous amount of carryover from last year," says a US spearmint grower. "This year's crop is an excellent yield, probably record setting. Growers have been reporting as high a.ı 200 pounds per acre from first and second cuttings."

FEDERAL MARKETING ORDER

Another important factor in the US spearmint pricing outlook is the Federal Marketing Order that has been in place since 1981. Under the order, a producer is given an allotment certificate enabling him to sell only the quantities specified. "The problem is that all excess oil put on the market goes into a non-saleable reserve pool," the US grower says. "Now buyers are holding off until the price drops; they know the oil is there."

"The purpose of the Federal Marketing Order was to maintain stable supply and strong pricing," says one source. "That succeeded and since 1981 we've had high prices, but now the supply is overwhelming the market."

Another problem that has arisen since the institution of the Federal Marketing Order has been the marketing of the allotments themselves. "Larger producers have been buying and selling the permits involved; a whole market has evolved from thin air," says a US producer. Though this maneuvering has been constant, he stresses, the major hurdle is the ever-growing reserve pool.

Sources speculate that the only way prices could firm in 1987 for the US spearmint oil would be for growers to take large amounts of acreage out of production. "No one is bowing out as of yet," says a grower, "especially when its so difficult to get the crop to mature in the first place."

ESSENTIAL OILS

FENNEL OIL — Indian fennel oil prices jmped over $3 per kilo last week on the heels of a price increase for the raw material.

PRICES TRENDLINES

WEEK ENDING NOV. 7, 1986

CHANGES/UP

Anise seed, Turkish Recleaned, 2c. per lb.
Balsam Copaiba oil, 20c. per kilo
Cassia, Indonesian, 2-10c. per lb.
Cloves, futures, 10c. per lb.
Cumin oil, $8 per lb.
Cumin seed, futures, 4c. per lb.
Dill seed, Indian, 5-7c. per lb.
Dill weed oil, 50c. per lb.
Lemongrass, Indian, 15c. per kilo
Rosemary, 2.5c. per lb.
Savory, French, 4c. per lb.
Tarragon, French FAQ, 20c. per lb.
Turmeric, Alleppey FAQ, 2c. per lb.
Vetivert oil, bourbon, $11 per lb.

CHANGES/DOWN

Cassia oil, Chinese, 79c. per lb.
Cardamoms, Indian bleached, 10c. per lb.
Clove bud oil, Madagascar, $1 per kilo
Cumin seed, Turkish, 2c. per lb.
Fennel seed Indian recleaned, 2c. per lb.
Litsea cubeba oil, 10c. per kilo
Mustard seed, US & Canadian, 1-2c. per lb.
Orange oils, 5c. per lb.
Rosemary oil, Tunisean, $1 per kilo
Spearmint oil, Chinese 60%, 10c. per kilo
Vetivert oil, Javan, $1 per kilo

PERFUMES INDEX

The Perfumes & Flavorings Index reflects the prices of 11 representative materials in this sector and the quantity of each supplied in 1985.

Nov. 7, 1986	71.00
Oct. 31, 1986	71.00
Sept. 26, 1986	71.00
Nov. 8, 1985	71.00

Chemical Prices Start on Page 36

Quotes for Indian fennel oil f.o.b. India ranged from $21 to $22 per kilo.

"It is a very small item," says an essential oils importer, "no more than 4 to 6 tons are imported every year." Given its size and restricted flavoring applications — only those usages that require the anise oil-type flavor — any substantial fluctuation at point of origin can affect shipping prices.

Another fennel on the market is the Spanish fennel bitter but its applications are so specialized, sources report, that the Indian fennel market doesn't affect its pricing.

GINGER OIL — The ginger oil market turned around in the past two weeks from an oversupply situation caused by large carry-

PERFUME & FLAVOR IMPORTS: AUGUST

CENSUS BUREAU REPORTS ON THE KEY AROMA CHEMICALS

		AUG. '86	JULY '86	YR to Date '86	AUG. '85
Benzyl Acetate	lb.	171,737	122,136	964,892	122,576
Castoreum	lb.	3,306	27,846	45,275	6,464
Citral	lb.	13,889	—	72,016	7,356
Citronellol	lb.	1,465	33,286	124,878	22,000
Civet	lb.	3,732	2,379	25,282	374
Ethyl Vanillin	lb.	63,934	50,706	304,002	32,188
Eugenol/isoeguneol	lb.	33,259	25,096	200,047	11,377
Geraniol	lb.	13,343	—	76,024	441
Heliotropin	lb.	22,866	66,615	211,533	20,000
Hydroxycitronellal	lb.	4,798	38,656	255,265	440
Indole	lb.	440	2,200	19,669	1,974
Ionone	lb.	81,483	37,170	468,808	37,610
Linalyl Acetate	lb.	132,113	144,403	738,843	—
Menthol	lb.	123,687	219,352	1,683,626	—
Methyl Salicylate	lb.	122,180	132,963	786,031	101,853
Musk, artif.	lb.	183,334	145,592	1,072,856	118,771
Phenylethyl Alcohol	lb.	90,983	166,096	1,140,714	50,505
Rhodinol	lb.	15	—	2,921	807
Vanillin	lb.	210,273	366,166	2,244,129	363,578

PERFUMES & FLAVORS

overs from 1985 to supply tightness with Indian ginger crops expected to be smaller than usual. Spot prices firmed $6 to $30 per pound in the past two weeks for Indian ginger oil. Chinese ginger oil prices have remained at $23 to $24 on the spot market but are expected to increase.

"The farmers didn't plant near as much as we thought they would," says one essential oils broker. "Rather than take a chance on the prices that they considered low, they changed to other crops altogether." Demand has been steady for ginger oil (CMR, 10/20/86, pg. 34), leading sources to anticipate further price increases. Estimates on the size of the 1986 India ginger crop range as low as half of the total 1985 production.

SEEDS AND SPICES

CASSIA — Prices for cassia continue to climb as dealers try unsuccessfully to obtain material from Indonesia. The "marketing board" will not make any offers until November 12, forcing prices on the limited amounts of available cassia to firm. "We're trying to buy merchandise," says one spice broker. "But they're keeping us in the dark."

Spot prices for Indonesian "A" 3.5/4.0 lb increased from $1.08 to $1.10 per pound to $1.15 to $1.20 per pound. Other Korintji spot prices increased 2c. to 4c. per pound. The futures market responded similarly, up 2c. to 6c. per pound for cassia delivered from January through April, 1987.

Another broker says price firming in the past three weeks was in anticipation of the "single selling system" rather than from product scarcity or increased demand. "The system will not allow buyers to choose the shippers they wish to patronize. Buyers have been scrambling to get as much cassia from those shippers they consider efficient and reliable before the system was instituted."

He adds that smaller Indonesian shippers and newcomers to the international market stand to benefit a great deal by securing large orders that wouldn't otherwise have been placed with them. But problems arise when an outfit doesn't have the personnel or facilities to guarantee the product will meet US sanitary requirements.

Sources predict that the "marketing board" will set a floor price on November 11 and "gradually try to increase cassia prices throughout 1987, testing whatever the market will bear." Until actual offers are made, emphasizes one source, prices reflect only the material on hand, and that is diminishing rapidly.

EPA Standards Limit Emissions

Environmental Protection Agency has set final standards under the Clean Air Act limiting emissions of particulate matter and oxides of nitrogen from industrial steam generating boilers.

The new standards are expected to reduce emissions of particulate matter (PM), like smoke and soot, by approximately 3 tons per year nationally. Oxides of nitrogen (NO_x) emissions would drop by approximately 25,000 tons per year.

These represent about a 40 percent reduction in the growth of PM and about a percent reduction in the growth of NO_x emissions from new steam generating units covered by these standards.

The rules apply primarily to industrial boilers, but include the largest institutional and commercial steam generating units and the smallest utility boilers.

Next to utilities, these steam generating units are the largest stationary source contributors of PM and NO_x emissions on a national basis. The rules require all new boilers with over 100 million Btu/hr capacity to meet the stringent standards.

EPA initially adopted standards of performance limiting PM, NO_x and sulfur dioxide (SO_2) emissions from fossil-fuel fired boilers in 1971. Those rules applied only to the largest industrial boilers and utility boilers (greater than 250 million Btu/hr).

The agency revised the standards applying to electric utility boilers in 1979 and proposed new standards for PM and NO_x emissions from units greater than 100 million Btu/hr in June 1984. In June 1986, the agency proposed new limits requiring SO_2 reductions for boilers larger than 100 million Btu/hr. These rules finalize the June 1984 PM and NO_x proposal.

EPA estimates the national cost of the standards will be about $36 million in the fifth year. This represents an increase of less than one percent over baseline in the total annualized costs associated with the operation of new industrial, commercial and institutional steam generating units. The national incremental costs of reducing the pollutants under this rule are about $1,100 per ton for particulate matter and about $460 per ton for oxides of nitrogen.

Under civil suit brought by the Sierra Club and the Natural Resources Defense Council, the U.S. District Court for the District of Columbia ordered EPA to finalize the PM and NO_x standards by November

COATINGS & PLASTICS

Recycled PET, Plastics Establish Growing Base

Recycled plastics are slowly establishing an identity in the market. Currently, all major plastics, particularly polyethylene terephthalate, polypropylene, high density polyethylene and nylon are being recycled and resold. Not only are larger plastics producers recycling their own material for resale, but small companies specializing in plastics recycling are now marketing recycled materials to molders, extruders and plastics compounders; some are developing their own lines of finished products.

According to John Molloy, of the Plastics Bottle Institute, a division of SPI, these companies specialize in PET recycling: they buy soft drink bottles, grind, clean and recycle them into flaked PET, which they then sell to molders or make into finished sheet.

Various sources describe the market for recycled PET as ranging from 100 million to 130 million pounds per year; merchant markets for recycled nylon, PE and PVC are much smaller; sources relate that they are still in the developmental stages, and at present their size cannot be determined.

Of the twenty companies currently involved in the recycled PET business, the three largest are Nyconn Industries, Ct., Wellman Industries Inc., S.C., and St. Jude Polymer Inc., Pa.

PET IS FOCUS

Steve Babinchak, president of St. Jude Polymer, reports that his firm concentrates on PET soft drink bottle recycling, although they also recycle base-cup HDPE. The company sells over 10 million pounds of recycled PET per year, and about 2 million pounds of HDPE, he says. It makes the recycled PET into crystal and solid state polymerized pellets, which are sold for 35 to 40 cents per pound; these are made into materials used primarily in engineering plastics application, and as metal in packaging applications.

The company has been in business for 9 years; currently it faces stiff competition from a major manufacturer of virgin PET, which is said to be selling less expensive material.

Despite these setbacks, Mr. Babinchak is confident of future success and continued annual growth, mostly through new finished plastics applications. He reports that the company will be starting a joint venture with a New England firm, to be announced in the first quarter 1987.

In the research and development area, St. Jude is working on pilot recycling projects with the Coca Cola Bottling Company, involving EVAL and PVDC coatings. Although the firm is now capable of recycling these materials, it is not yet doing so on a commercial basis.

To meet anticipated future growth, the company plans to double its PET recycling capacity to 20 million pounds by June of 1987.

A spokesman for Wellman Industries Inc. reports that his firm recycles both nylon and PET for use in polyester fiberfill; it also extrudes its own recycled plastic material.

There is said to be considerable overcapacity in the recycled plastics market, as these and other growing companies wait for new applications to develop. This is especially pronounced in the green bottle resin area; sources relate that a substantial amount of this material is being stored in hope that future uses for it will emerge. Recyclers are pinning their hopes on extruded sheets, reinforced injection molding, and filled polyester resin products.

The Plastics Recycling Foundation, an independent non-profit organization founded last year, works with recyclers, packaging manufacturers and bottlers to develop new markets for various recycled plastics. The group, which currently consists of 26 plastics producers, packaged goods companies, soft drink companies, recyclers and others, is funded by state and Federal agencies in New Jersey, Ohio and Michigan.

The Foundation established a Plastics Recycling Institute at Rutgers University in New Jersey last year, which has been certified as an Industry/University Cooperative Research Center of the National Science Foundation. Its pilot plant at Rutgers, so far the main focus of the Foundation is said to be operating at demonstration rate of 600 pounds per hour, with 99.5 percent purity levels.

The Foundation has established similar but smaller projects at the New Jersey Institute of Technology, Michigan State University and Toledo University, with projects ranging from research into recycling HDPE milk bottles to market development programs.

Working closely with recycling companies, the Foundation operates an extensive technical data base; it is researching to improve plastics recycling, and to demonstrate

Continued on Page 33

PRICES TRENDLINES

WEEK ENDING NOV. 7, 1986

CHANGES/UP

None

CHANGES/DOWN

None

COATINGS INDEX

The Coatings & Plastics Index reflects the prices of 13 representative materials in this sector and the quantity of each produced in 1985.

Nov. 7, 1986	306.4
Oct. 31, 1986	306.4
Oct. 10, 1986	306.4
Nov. 8, 1985	306.4

Chemical Prices Start on Page 36

PLASTIC RESIN SALES & OUTPUT: AUGUST

SPI'S COMMITTEE ON RESIN STATISTICS REPORTS.

		Sales and Use (1,000 LBS) 1986	Sales and Use (1,000 LBS) 1985	Production (1,000 LBS) 1986	Production (1,000 LBS) 1985
THERMOSETTING RESINS:					
Epoxy resins (unmodified)	lb.	30,728	31,693	31,289	34,006
Urea resins	lb.	103,634	94,245	105,067	95,185
Polyester resins	lb.	102,021	103,821	104,770	102,746
Phenolic and other tar acid resins	lb.	226,354	221,217	226,919	216,739
Melamine resins	lb.	15,062	16,691	13,025	15,695
THERMOPLASTIC RESINS:					
Acrylonitrile Butadiene Styrene (ABS)	lb.	86,331	81,630	89,870	94,496
Polyvinyl alcohol	lb.	—	13,450	—	12,205
Polyvinyl chloride	lb.	613,258	565,459	598,342	521,367
Polyethylene (density above 0.940)	lb.	627,742	592,465	631,833	547,194
Polyethylene (density below 0.940)	lb.	767,258	727,623	710,921	742,722
Polypropylene	lb.	513,037	439,558	465,730	438,078
Styrene-acrylonitrile (SAN)	lb.	7,030	6,745	7,435	6,295
Polystyrene (total)	lb.	361,525	340,176	377,487	333,870

HEAVY & AG CHEMICALS

PVS Announces Sulfuric Hike In Depressed Chicago Market

In an attempt to firm up prices in the depressed Chicago-area market, PVS Chemical Inc. has announced an increase in off-list prices for sulfuric acid. The hike is for shipments from its Chicago, Ill., plant and is effective January 1, 1987, or as contracts allow.

The new price for 66 degree Baume acid will increase by $5 per ton, 66 degree Baume basis, not to exceed current schedule of $64.50 per ton.

The price of 60 degree Baume and 98 percent acid will increase by $5.35 per ton, 100 percent basis, not to exceed schedule of $79.25 per ton.

In addition, all grades of oleum will increase by $5.35 per ton, 100 percent basis, not to exceed schedule of $82.25 per ton, 100 percent basis.

Major suppliers in the area include C-I-L, which markets Canadian acid, Stauffer Chemicals, which produces in Hammond, Ind., and to a lesser extent, E.I. du Pont de Nemours & Co., which produces in Ohio and markets some Southwest smelter acid.

Sources say that prices have been stable for some time, but at levels that most consider to be unsatisfactory.

"Sulfuric acid producers are not making a great deal of money in that area," says one observer. Selling prices for large buyers are quoted in the $62-to-$65 per ton range, 100 percent basis, f.o.b. plant, considerably below list levels.

COST DRIVEN INCREASE

Most concede that if an increase is successful, it will be production cost, rather than supply-demand, driven. Raw material sulfur prices have increased moderately over the course of the year, while sulfuric acid prices have stayed flat, or declined.

On the other hand, observers say that the Midwest, with Chicago being no exception, is amply supplied. St. Joe's Herculaneum, Mo., smelter acid plant is in the process of starting up, having been down since May. The company's presence in Chicago is minimal, however.

Asarco closed its Columbus, Ohio, zinc smelter early this year, but has been supplying that terminal from its El Paso, Tex., smelter.

The area's last significant plant closure was Du Pont's late-1984 East Chicago shutdown. Since then, Midwest demand has been relatively flat, while area producers continue to lose the fight against smelter acid imports from Canada.

According to Bureau of Census, through September 638,390 tons of sulfuric acid have entered the US from Canada, as opposed to 324,776 tons for the same period last year.

At the same time, says Department of Commerce, production in the Midwest has declined. Through August, 381,082 tons were produced in Illinois, a decline of 12 percent from the same period last year. Similarly, 234,952 tons were produced in Ohio through August, a decline of over 11 percent.

Sources now say that any increase in the area is likely to depend on the support of C-I-L. C-I-L is aware of the announcement but at present has no comment on its plans.

BASES & SALTS

CHLORINE — Effective immediately for spot customers and as contract terms allow, Pennwalt is increasing the price of bulk chlorine by $20 per ton, not to exceed $195 per ton for shipments from either Portland, Ore. or Tacoma, Wash.

Pennwalt is also increasing prices for ton containers by 1c. per pound and chlorine cylinders by 1½c. per pound (5c. per pound for cylinders in Montana).

New list prices follow for ton containers more than 75 tons per year, 16c. per pound; between 45 and 74 tons per year, 16½c. per pound; between 20 and 44 tons per year 17½c. per pound; between 11 and 19 tons per year, 18½c. per pound; and between 1 and 1[illegible] tons per year, 22¼c. per pound.

New list prices for chlorine cylinders (customer-owned) are: f.o.b. seller's plant, [illegible] per pound; f.o.b. seller's plant, Portland or Tacoma, 28c. per pound; f.o.b. metropolitan areas, 32c. per pound; statewide delivered cylinders for Washington and Oregon, [illegible] per pound; for Idaho, 40c. per pound; for Montana, west of the Continental Divide, 50[illegible] per pound; for Montana, east of the Continental Divide, 51½c. per pound; for Wyoming 51½c. per pound; for Alaska, Hawaii and other off-shore destinations, 34c. per pound and for Northern California, 40c. per pound.

Observers note the bulk chlorine increase is coming at an unusual time, as most chloralkali increases come on a quarterly basis. The Northwest pulp and paper business is said to be doing especially well this year however, and chlorine supplies in that isolated market are called tight.

One source says that the increase on chlorine in one ton containers and cylinders follows a similar hike announced by Canadian chlorine repackagers earlier this year.

SULFUR DIOXIDE — Surveyed suppliers of sulfur dioxide agree that the price [illegible]

PRICES TRENDLINES

WEEK ENDING NOV. 7, 1986

CHANGES/UP
None

CHANGES/DOWN
None

HEAVY & AG INDEX

The Heavy & Ag Chemicals index reflects the prices of 18 representative materials in this sector and the quantity of each produced in 1985.

Nov. 7, 1986	113.69
Oct. 31, 1986	113.69
Oct. 10, 1986	113.69
Nov. 8, 1985	113.69

Chemical Prices Start on Page 38

FERTILIZER CHEMICAL OUTPUT: AUGUST

CENSUS BUREAU NUMBERS IN SHORT TONS ON KEY FERTILIZERS.

	AUGUST	JULY	AUGUST '85
Ammonia, syn., anhyd.	1,097,432	1,007,918	1,231,25[illegible]
Ammonium nitrate	377,198	366,739	[illegible]
Ammonium nitrate/urea solutions	152,226	144,612	[illegible]
Monoammonium phosphates	73,093	58,226	[illegible]
Other ammonium phosphates	54,710	48,333	[illegible]
Ammonium sulfate	156,926	160,171	[illegible]
Diammonium phosphate	714,738	689,909	[illegible]
Nitric acid	451,501	446,480	[illegible]
Phosphoric acid	705,764	692,070	[illegible]
Sulfuric acid	2,877,126	2,[illegible],381	[illegible]
Superphosphate, concentrated	205,526	149,565	[illegible]
Superphosphate, normal & enriched	35,449	28,040	[illegible]
Superphosphate and other phosphate fert.	1,063,516	953,976	[illegible]
Urea	472,505	421,780	[illegible]

HEAVY CHEMICALS

creases announced throughout September have held.

Stauffer Chemical Company initiated the price increase, raising sulfur dioxide by $10 per ton, to $230. Several companies followed. Cominco America Inc. also raised its price, to $150 per ton, f.o.b. Trail, British Columbia.

"As far as I know, (the increase) has held...I'm not aware of any move to take it off," says one source. Another source claims the increase is "holding very well."

Because of contractual terms, the increase has not yet affected all purchasers. For example, says one source, customers with 30-day price protection were not affected, and won't be until new contracts are written next quarter.

"It's not uncommon for there to be some loose ends to be tied up," notes a source. He adds this is especially common when a product's price has not risen for a long time. Sulfur dioxide's price had last increased in late 1981, according to those surveyed.

METALS & MINERALS

LEAD — Lead's price continues to increase, because of increased battery production and a general supply shortage.

One producer recently established a price of 27 ½c. per pound, while another reportedly carries a price between 26 ¾ and 27c. per pound. One month ago, lead's price was 24 ½c. per pound, and was as low as 21c. per pound at the end of Summer.

One reason for the shortage, according to a source, has been a strike at Broken Hill, based in Australia. The strike was recently settled, but the source notes the company will take a while to resume full operations. The strike lasted about five months.

Lead stocks on the London Metal Exchange have dropped significantly, the source continues. Current lead stocks total 19,075 metric tons. The total was about 50,000 metric tons in the middle of May.

Union Carbide

Continued from Page 9

the site, Robert D. Kennedy, president and chief executive officer, said. Related Companies owns, develops, finances, operates, manages or syndicates a total of 320 properties in 213 cities in 36 states.

Union Carbide said that it intends to continue to consider further refunding of the

In addition to the financial benefits of the recapitalization, Union Carbide expects that elimination or modification of the restrictive covenants will increase its operating flexibility and permit the corporation to pursue strategic business opportunities.

Initially, the purchase of the securities will be financed with borrowings under a bank credit agreement plus borrowings under a bridge loan being arranged by First Boston and possibly a private placement of senior, unsecured notes. Consummation of the tender offer is subject to obtaining this financing.

The securities to be acquired are all of the 13 ¼ percent senior notes due 1993, the 14¾ percent senior notes due 1996 and the 16 percent senior debentures due 2006. Purchase prices, respectively, will be 115 percent, 121 ⅝ percent and 133 percent of the principal amount plus accrued interest.

The tender offer is conditioned upon receipt of consents to Carbide's request for elimination or modification of the restrictive covenants and to the tender of at least 80 percent of the outstanding principal amount of the debt securities.

Chesebrough Sets

Continued from Page 9

are anticipated before the end of the year for the approximately 600 employees who will be affected by sale of the ten plants, Chesebrough-Ponds says.

In commenting on the sale of the Stauffer Seeds business, Mr. Ward indicates that proceeds from the sale of this unit will allow the company to commit more of its resources to its agricultural pesticides business.

Chesebrough-Pond's, headquartered in Westport, Conn., is a diversified producer of health products, personal care and beauty products, foods, clothing, and through its Stauffer Chemical Company acquisition of last year, chemicals. Worldwide sales in 1985 were approximately $2.8 billion.

Airco Forms Division For Retail Operations

BOC Group, Inc., last week announced the formation of a new division, Airco Retail Operations, naming Keith L. Weir as president of the new division.

"Mr. Weir's appointment," says executive vice president Robert E. Lienhard, "reflects our commitment to the retail operations and our desire to increase revenues and profitability in this important line of business."

COATINGS & PLASTICS

Continued from Page 29

state-of-the-art developments in recycling technology to interested companies.

Wayne Pearson, executive director of the Institute, hopes that recycled plastics markets will grow by as much as 10 percent per year through 1990, partly as a result of the Institute's work.

PRIME PIGMENTS

TITANIUM DIOXIDE — Producers say that October's price increases have been fully implemented; selling prices for rutile grades now range from 80c. per pound to 84c. per pound, and those for anatase from 77c. per pound to 80c. per pound. Discount prices are at or near list, producers say.

Supply and demand for ores is said to be in balance, but rutile is currently in short supply, and prices have increased to between $400 and $500 per ton, on spot basis. Producers are said to be upgrading ilmenite and Canadian slags, which contain less titanium than rutile ores, whenever practical, to use in place of rutile.

New sources of ore are not yet operational, producers say.

Total domestic demand is expected to reach between 930,000 tons and 970,000 tons this year. One producer, placing the figure at 930,000 tons, explains that coatings will capture 50 percent of the total.

PLASTICS MATERIALS

POLYPROPYLENE — Producers report that October's 2c. and 3c. per pound price hikes are definitely on track so far, and prices are firming across the board, although individual contract terms may be slowing the process in certain market segments. Although current average selling prices do not reflect the full increase, producers expect to see the total amount, contract terms permitting, by the end of the month.

General purpose homopolymer grades currently sell for 30c. per pound to 34c. per pound, while copolymers are priced over 40c. per pound, depending on grade.

Demand has been going strong since early this Summer, with a particularly healthy export market pushing overall growth. Through August, export levels rose 28 percent over last year's volumes, while the domestic market grew 6 percent, for overall market growth of 9 percent. Preliminary SPI figures for September show overall market growth of 10 percent, with production up almost 12 percent over last year's levels. Producers report that demand for October, based on advanced customer bookings, is showing an even higher growth rate.

Supplies are still tight, with producers using almost all available capacity; the average utilization rate is in the high nineties. Inventories have been drawn down significantly since September, when they stood at 30- to 35-day levels; currently, they stand between 25 and 30 days.

With surging demand, all producers report that they are planning debottlenecking projects. Himont USA Inc. has just brought 2 new "Spheripol" process plants onstream in Bayport, Tex. and Lake Charles, La. By the end of this quarter, the company plans to restart idled capacity.

POLYSTYRENE — Other major producers of polystyrene have followed American Petrofina's move to raise prices for the plastic, although they have posted later effective dates.

Two weeks ago, Huntsman Chemical Company announced that it would raise prices for crystal and impact grades by 3c. per pound, and those for pre-colored specialty grades by 2c. per pound.

Last week, Dow Chemical Company, followed with similar price increases also to be effective December 1.

Petrofina's increase was slated for November 1. Given the delayed response by other producers, a spokesman says the firm may have to adjust the effective date to reflect competitive market conditions.

Demand for the polymer has been strong this year. Through August, year-to-date sales and production both rose by over 8 percent above last year's volumes. September demand was even higher, with preliminary figures from SPI showing sales up 9 percent and production up 8 percent over 1985 levels.

Producers describe high capacity utilization rates and low inventory levels.

Although all producers are planning future expansions, nothing definite has yet been announced. Polysar Inc. completed its purchase of Monsanto Company's polystyrene business in late September. The new acquisition will boost its production capacity to 860 million pounds per year, making Polysar one of the 3 leading polystyrene producers in North America.

PLASTICS ADDITIVES

METALLIC STEARATES — Producers feel that metallic stearate prices may finally start to firm, following recent increases in tallow and stearic acid prices.

So far, tallow prices have moved up 2 ¾c. per pound since July, with stearic acid prices following. Prices for stearates have been depressed this year; from April through July, they fell between 5c. and 6c. per pound.

Overcapacity and competitive discounting are still market norms, producers say; selling prices for some calcium stearates (specifically, those involved in PVC compounding) are currently as low as half the list price.

Chemical Finance

Allied-Signal Declares Dividends

Directors of Allied-Signal Inc., Morris Township, N.J., have declared unchanged dividends of 45 cents per share on the common stock, $22.8130 on the Series A preferred and $21.5628 on the Series G preferred.

British Oxygen Rating Changed by Greenwell

Greenwell Montagu Research, of London and New York, has changed its share purchase recommendation on BOC Group of Great Britain from "Buy" to "Buy or Hold," and has made the same change in its Coalite PLC recommendation. Greenwell's Stuart Wamsley, David Ingles and Judy Shaw cited the recovery in the price of BOC's shares.

Just prior to the announcement of a merger pact between Celanese Corporation and Hoechst AG, Greenwell reaffirmed its buy recommendation on Hoechst's shares, and Christopher Willis, of E.F. Hutton & Co., issued a buy recommendation on Celanese. Also, Moody's Investor Services upgraded its ratings on Hoechst's securities.

Damon Corporation Reduces Loss in Fiscal Year

Damon Corporation, Needham Heights, Mass., had a net loss of $2,618,948 in the fiscal year ended August 31, an improvement over the loss of $3,227,329 the previous year. Without the impact of its majority-owned subsidiary Damon Biotech, the company would have nearly doubled its earnings to 68 cents per share from 36 cents a year ago.

Eagle-Picher Adopts 'Poison Pill' Defense

Eagle-Picher Industries, Inc. will distribute common share purchase rights on each outstanding share of its common stock that will permit holders to purchase at the then-current exercise price shares of a would-be acquirer having twice the value of the exercise price.

Erbamont's Net Income Rises 12 Percent

Net income of Erbamont NV, the Italian health care group in which Hercules Incorporated holds an interest, raised its net income in the first nine months to 70.9 billion lire from 63.5 billion a year ago. In US dollars, the increase was 45 percent to $50.8 million from $34.9 million. Net sales totaled 883.9 billion lire, down 7 percent from a year ago, but in dollars, sales were up 21 percent to $632.8 million.

Erbamont's "Adriamycin" continues as the most widely used anti-cancer drug in the United States and Western Europe.

Inspiration Acquires Merrill Lynch Leasing

Inspiration Resources Corporation, a New York-based diversified producer of copper and other metals, has completed the purchase of Merrill Lynch Leasing, Inc., which was a wholly owned subsidiary of Merrill Lynch & Co., for approximately $99 million. The acquired company has been re-named Inspiration Leasing Incorporated and will continue to be headquartered in New York. Reuben F. Richards, chairman of Inspiration Resources, said the acquisition provided the company with a foothold in the financial services industry.

Integrated Genetics Has Its First Profit

Integrated Genetics, Inc., Framingham, Mass., had its first quarterly profit ever in the third quarter, when it earned $1.7 million, as compared with a loss of $1.4 million a year earlier. Robert J. Carpenter, president and CEO, said the profit was in large measure related to the company's recently announced joint venture with Amoco Corporation in nucleic acid probe diagnostics.

Millipore's Outlook Called Upbeat

Millipore Incorporated, a strong competitor in the $9.5 billion market for analysis and purification, will exceed the industry averages in 1987 with revenue growth of 17-18 percent, according to PaineWebber Inc. The company's 1986 sales are projected at $109,461,000, up from $90,700,000 last year, and net income is put at $9,132,000, versus last year's $7,851,000.

PaineWebber's analysts note that Millipore is a multinational company, with 51 percent of its sales in the US, 24 percent in Europe, 14 percent in the Pacific and 11 percent miscellaneous.

Moore Medical Has Big Gain in Income

Moore Medical Corporation, New Britain, Conn., a national wholesale distributor of brand-name and generic pharmaceuticals and medical and surgical supplies, had third-quarter sales of $49,345,000, up 32 percent from $47,352,000 a year earlier, and net income of $1,123,000, an increase of 28 percent from last year.

Shell Chemical Has Strong Boosts in Profits

Shell Oil Company, Houston, Tex., had chemical segment earnings of $54 million in the third quarter and $201 million in the first nine months, up strongly from $14 million and $63 million in the comparable 1985 periods, reports John F. Bookout, president of Shell Oil. Total earnings of Shell oil were $133 million in the quarter, a decrease of $232 million from a year ago, and $628 for the nine months, a decrease of $365 million. The decline reflected the impact of lower oil prices on exploration and production. results.

Ashland to Apply Excess Pension Funds to ESOP

Ashland Oil Inc. will apply excess pension funds to fund a substantial portion of the $255 million in debt used to establish an employee stock ownership plant. The company also reported the purchase of annuities covering accumulated benefit obligations of most of its pension plans.

Celanese Raises Sales and Income

Celanese Canada Inc. raised its net income to $2.3 million in the third quarter on net sales of $78.4 million from $1.9 million and $77.5 million in the same 1985 period. Despite normal seasonal shutdowns in the period, the company's Textile Group continued its strong performance, with both cellulosic and polyester fibers reporting better results than a year ago, the company said.

Robins Reinstates Skadden, Arps as Counsel

A.H. Robins Company will seek reinstatement of the law firm of Skadden, Arps, Slate, Meagher & Flom as counsel in its bankruptcy proceedings as a result of the release of Skadden, Arps by Aetna Life & Casualty from its commitment to Aetna. Aetna is the second largest creditor in the Robins bankruptcy case.

CHEMICAL IMPORTS

US imports of chemicals and related materials are reported in this section by CPI material. Listings include consignee where possible, container, net weight, name of vessel (in parenthesis), port of origin and date of shipment's arrival in New York or the Port of Newark.

US chemical imports/exports are tabulated monthly in the market reports.

A-B

2 AMINO 4 CHLORO 6 NITROPHENOL 68 dms (15650 lbs) (Ming Peace) Kobe, 10/6.
2 AMINO 6 METHOXY BENZOTHIAZOLE 4 dms (1446 lbs) (Ming Peace) Kobe, 10/6.
ABS RESIN FORMULATION Goldmark Plastic Compounds 2720 bgs (151015 lbs) (Ming Peace) Kobe, 10/6.
ACETAMINOPHEN USP MEDICINE DRUG NPS Intl 200 dms (47399 lbs) (New Jersey Maru) Kobe, 10/6.
ACETAMINOPHEN USP POWDER Byron Chemical 200 dms (26213 lbs) (Ever Linking) Keelung, 10/6.
AGAR AGAR American Shpg 60 bgs (3466 lbs) (Aconcagua) Valparaiso, 10/4.
ALLEPPEY FINGER TURMERIC Rue Fwdg 96 bgs (13417 lbS) (Sea Land Express) Rotterdam, 10/6.
ALPHA PICOLINE Lonza 9 dms (3929 lbs) (Nurnberg Express) Bremerhaven, 10/8.
ALUMINUM ACETYLACETONATE Votelner Consolidation Servi 50 dms (6063 lbs) (Aldebaran) Bremen, 10/6.
AMMONIUM PERSULFATE Mitsubishi Intl 1440 pkg (0 lbs) (Verrazano Bridge) Tokyo, 10/13.
AMMONIUM SULFAMATE Atlas Intermodal Transport 1800 bgs (90874 lbs) (Ming Peace) Keelung, 10/6.
AMORPHOUS GRAPHITE Asbury Graphite Mills 3040 bgs (310128 lbs) (American Washingt) Hong Kong, 10/6.
Shandong Enterprises 2100 bgs (117594 lbs) (American Washingt) Hong Kong, 10/6.
AMYRIS OIL Polarome Mfg 5 dms (2200 lbs) (Saint Louis) Haina, 10/6.
ANILINE 2 4 DISULFONIC ACID Silvey Shpg 300 mix (38918 lbs) (Ming Peace) Kobe, 10/6.
ANISEED Louis Furth 240 bgs (26465 lbs) (Americana) Valencia, 10/14.
ANISIC ALDEHYDE CRUDE BASF K & F 14 tnk (36420 lbs) (Numberg Express) Antwerp, 10/8.
ANTHRANILIC ACID THIAMID 12 dms (3756 lbs) (Clarence) Rotterdam, 10/9.
ARABIC GUM Colloides Naturels 360 bgs (40476 lbs) (Atlantic Star) LeHavre, 10/8.
ATACTIC POLYPROPYLENE Universal Transcontinental 1400 bgs (77778 lbs) (Ming Peace) Kaohsiung, 10/6
AZODICARBONAMIDE Marubeni America 100 ctn (5291 lbs) (New Jersey Maru) Kobe, 10/6.
BALSAM COPAIBA 12 dms (5291 lbs) (Tapajos) Manaus, 10/8.
BARIUM CHLORIDE Comstals 1360 bgs (75556 lbs) (Verrazano Bridge) Kobe, 10/13.
BARIUM FERRITE Magno Cream 30 cs (121033 lbs) (Americana) Genoa, 10/4.
BARIUM SULPHATE E Z Em 1680 bgs (94877 lbs) (Americana) Genoa, 10/14.
BASIL A A Sayla 500 bgs (27557 lbs) (Clarenco) Felixstowe, 10/9.
BEESWAX Societe La Ceresine 64 bgs (9052 lbs) (Saint Louis) Haina, 10/6.
BENZALDEHYDE 2 SULF ACID NO SALT Chemical 212 dms (25708 lbs) (New Jersey Maru) Shimizu, 10/6.
BENZALDEHYDE O SODIUM SULPHONATE 72 csk (23567 lbs) (Clarence) Rotterdam, 10/9.
BENZOIN GUM Penco 17 cs (4409 lbs) (Konker Posoldon) Singapore, 10/6.
BENZYL ALCOHOL Fritzsche Dodge & Olcott 90 dms (43851 lbs) (Americana) Barcelona, 10/14.
BENZYL BROMIDE Fluka Chemical 3 can (459 lbs) (Atlantic Star) LeHavre, 10/6.
BETA OXY NAPHTHOIC ACID Brauner Intl 80 bgs (4497 lbs) (New Jersey Maru) Nagoya, 10/6.
BISMUTH SUBGALLATE Fernando Roque Tisa 8 dms (952 lbs) (Americana) Barcelona, 10/14.
BISMUTH TRIBROMPHENATE President Container Line 4 dms (463 lbs) (Dart Americana) Felixstowe, 10/6.
BITTER ORANGE ESSENTIAL OIL Polarome Mfg 6 dms (2520 lbs) (Zeus) Santos, 8/20.
BLACK PEPPER Central Indonesian Trdg 400 bgs (67902 lbs) (Cape Corfu) Pandjang, 10/9.
DMT 1987 bgs (328438 lbs) (Cape Corfu) Pandjang, 10/9.
DMT 2112 bgs (225222 lbs) (Verrazano Bridge) Hong Kong, 10/13.
Durkee Foods 1800 bgs (200398 lbs) (Tapajos) Belem, 10/8.
400 bgs (67902 lbs) (Cape Corfu) Pandjang, 10/9.
Ludwig Mueller 2400 bgs (267264 lbs) (Tapajos) Belem, 10/8.
400 bgs (44621 lbs) (Tapajos) Belem, 10/8.
Prudent Trdg 2100 bgs (232409 lbs) (Tapajos) Belem, 10/8.
BONE GLUE AGA Chemical 680 bgs (76456 lbs) (American Washingt) Kobe, 10/6.
BROMOCHLOROPROPANE Ariel Maritime Group 24 dms (14826 lbs) (Numberg Express) Antwerp, 10/8.
BUTANE 1 bks (18509806 lbs) (Kepler) L Avera, 10/8.
BUTYL GLYCOL Chemicolor 76 dms (33510 lbs) (Alison) Salvador, 10/11.

C-E

CADMIUM PIGMENT C H Powell 12 dms (1323 lbs) (New Jersey Maru) Tokyo, 10/6.
Leyden Customs Expediters 33 dms (4985 lbs) (Ming Peace) Yokohama, 10/6.
CALCIUM CARBONATE H M Royal 4800 bgs (246375 lbs) (American Washingt) Kobe, 10/6.
Pfizer 4095 lbs) (277350 lbs) (Freedom) Marseille, 10/6.
CARNAUBA WAX Frank B Ross 440 bgs (44872 lbs) (Lloyd Pacifico) Fortaleza, 10/8.
Astor Wax 600 bgs (33263 lbs) (Alison) Fortaleza, 10/11.
Frank B Ross 440 bgs (44484 lbs) (Zeus) Fortaleza, 8/20.
400 bgs (44484 lbs) (Lloyd Pacifico) Fortaleza, 10/8.
Robert S Baldini 2040 bgs (93361 lbs) (Lloyd Pacifico) Fortaleza, 10/8.
CARNAUBA WAX Strahl & Pitsch 440 bgs (44484 lbs) (Lloyd Pacifoco) Fortaleza, 10/8.
1680 bgs (133533 lbs) (Alison) Fortaleza, 10/11.
CASSEL SODIUM CYANIDE 360 dms (43775 lbs) (Clarence) Rotterdam, 10/9.
CASSIA Daarnhouwer 250 bgs (33841 lbs) (Cape Corfu) Padang, 10/9.
CASSIA CORINTJI Otto Gerdau 214 bgs (33069 lbs) (American Washingt) Singapore, 10/6.
CASSIA K B U S Lines 980 bgs (132276 lbs) (American Washingt) Singapore, 10/6.
CASSIA KA Daarnhouwer 240 bgs (33598 lbs) (Cape Corfu) Padang, 10/9.
Intl Brokers 164 bgs (22408 lbs) (Cape Corfu) Padang, 10/9.
CASSIA KB Daarnhouwer 400 bgs (55997 lbs) (Cape Corfu) Padang, 10/9.
Louis Furth 170 bgs (22421 lbs) (Cape Corfu) Padang, 10/9
Ludwig Mueller 410 bgs (56240 lbs) (Cape Corfu) Padang, 10/9.
U S Lines 240 bgs (33069 lbs) (American Washingt) Singapore, 10/6.
CASSIA KORINTJI Otto Gerdau 500 bgs (66303 lbs) (Cape Corfu) Padang, 10/9.
CASSIA KORINTJI A Louis Furth 235 bgs (33587 lbs) (Cape Corfu) Padang, 10/9.
CASSIA KORINTJI B A Kazemi 167 bgs (22414 lbs) (Cape Corfu) Padang, 10/9.
CASSIA VERA Daarnhouwer 250 bgs 933730 lbs) (Cape Corfu) Padang, 10/9.
Otto Gerdau 494 bgs (66138 lbs) (American Washingt) Singapore, 10/6.
CASSIA VERA AA Lebermuth 192 pkg (25049 lbs) (Cape Corfu) Padang, 10/9.
Morris J Golombeck 125 ctn (11596 lbs) (Cape Corfu) Padang, 10/9.
William E Martin 39 ctn (3468 lbs) (Cape Corfu) Padang, 10/9.
CASTOR MEAL Pearman Watlington 360 bgs (39683 lbs) (Nurnberg Express) Antwerp, 10/8.
CAUSTIC SODA PEARLS Armen Cargo Service 1764 bgs (90973 lbs) (Americana) Barcelona, 10/14.
CEDARWOOD OIL W R Keating 167 dms (74554 ls) (American Washingt) Hong Kong, 10/6.
CELERY SEED 500 bgs (66138 lbs) (American Washingt) Khor Fakkan, 10/6.
Schiff Food Products 210 bgs (27778 lbs) (American Washingt) Khor Fakkan, 10/6.
CHOLINE BITARTRATE Scanfreight 100 mix (11949 lbs) (Atlantic Star) Rotterdam, 10/6
Arrow Chemicals 80 pkg (9418 lbs) (Almudena) Bilbao, 10/4.
CHROMIUM OXIDE American Chrome & Chemicals 20 bgs (2275 lbs) (Nurnberg Express) Greenock, 10/8.
CITRIC ACID Omnitrans 1090 bgs (79517 lbs) (Jadran Express) Koper, 10/6.
CITRIC ACID ANHYDROUS Helm 396 bgs (39966 lbs) (Amelcana) Genoa, 10/14.
Helm New York Chemical 396 bgs (39965 lbs) (Jadran Express) Genoa, 10/6.
Amalgamated Metal 1400 bgs (78319 lbs) (Verrazano Bridge) Kobe, 10/13.
CYANURIC ACID A W Fenton 400 dms (42000 lbs) (Ming Poace) Koelung, 10/6.
Atlas Intermodal Transport 800 dms (84000 lbs) (Ming Poaco) Kaohsiung, 10/6.
CYANURIC CHLORIDE Degussa 180 dms (43254 lbs) (Numberg Express) Antwerp, 10/8.
CYCLOHEXYLMETHYL CARBYNIL BUTYRA Bubal 17 dms (7496 lbs) (Dart Americana) Felixstowe, 10/6.
DALMATIAN SAGE Louis Furth 310 bls (34171 lbs) (Jadran Express) Rijeka, 10/6.
Louis Furth 300 bls (33069 lbs) (Jadran Express) Rijeka, 10/6.
Louis Furth 620 bls (68342 lbs) (Jadran Express) Bar, 10/6.
DICHLORODIFLUOROMETHANE Kali Chemie 1 tnk (41887 lbs) (Americana) Barcelona, 10/14.
DIETHYL META AMINOPHENOL Biddle Sawyer 20 dms (2480 lbs) (Lica Maersk) Leghorn, 10/9.
DIETHYL PHTHALATE 152 dms (85116 lbs) (Ever Superb) Leghorn, 10/9.
DIETHYLANILINE Daniel F Young 1 tnk (41491 lbs) (Aldebaran) FElixstowe, 10/5.
DIETHYLCARBAMAZINE CITRATE Scanfreight 30 dms (3585 lbs) (Atlantic Star) Rotterdam, 10/6.
DIMETHYLAMINOPROPYLAMINE 2 tnk (79189 lbs) (Gina S) Antwerp, 10/10.
DIMETHYLTHYLAMINE 124 dms (42509 lbs) (Ever Superb) Fos, 10/9.
DIPENTAERYTHRITOL Hermann Ludwig 560 bgs 931111 lbs) (Ever Linking) Busan, 10/6.
800 bgs (35979 lbs) (Ming Peace) Yokohama, 10/6.
DIPHENYLAMINE 1 tnk (42350 lbs) (Numberg Express) Greenock, 10/8.
ELECTROLYTIC MANGANESE DIOXIDE 1350 sks (120335 lbs) (Sea Land Express) Rotterdam, 10/6.
EPSOM SALT Potash Import & Chemical 400 bgs (40353 lbs) (Dart Americana) Bremerhaven, 10/6.
Potash Import & Chemical 400 bgs (41323 lbs) (Clarence) Bremerhaven, 10/9.
Qualchem 3200 bgs (322827 lbs) (Clarence) Bremrehaven, 10/9.
ETHANOL 3 bks (8091667 lbs) (Stolt Entente) Rotterdam, 10/13.
ETHYL C ACID Universal Transcontinental 400 bgs (23633 lbs) (Ming Peace) Kobe, 10/6.
ETHYL PARA TOLUENE SULFONATE Acetco 8 dms (3966 lbs) (Ever Linking) Keelung, 10/6.
ETHYLALUMINUM CHLORIDE Sherex Chemicals 1 tnk (31790 lbs) (Numberg Express) Hamburg, 10/8.
ETHYLENE VINYL CHLORIDE COPOLYMER Toyo Soda 756 bgs (42752 lbs) (Ever Linking) Tokyo, 10/6.

F-H

FLUOROBORIC ACID Leschaco 1 tnk (38596 lbs) (Atlantic Star) Bremerhaven, 10/6.
FLUOROCARBON POLYMERS Viking Sea Freight 380 ctn (48297 lbs) (New Jersey Maru) Tokyo, 10/6.
FLUOROCARBON F 112 50 dms (38288 lbs) (Ming Peace) Kobe, 10/6.
GAMMA ACID DRY Ciba Geigy 160 dms (38095 lbs) (Numberg Express) Hamburg, 10/8.
GELATIN O C Lugo 440 bgs (25282 lbs) (Aldebaran) Felixstowe, 10/5.
Corbett Intl 6 dms (1409 lbs) (Zim New York) Barcelona, 10/8.
Davis Gelatine 680 bgs (38078 lbs) (Cartagena De Indi) Cartagena, 10/8.
GENERIC POLYPHENYLENE SULFIDE PO Celanese 2 crt (4072 lbs) (New Jersey Maru) Tokyo, 10/6.
GLYCERINE Magna Kron 1 tnk (45922 lbs) (Zeus) Santos, 8/20.
1 tnk (44312 lbs) (Alison) Santos, 10/11.
GLYCEROL Rhone Poulenc 186 dms (22101 lbs) (Atlantic Star) LeHavre, 10/6.
GUAR GUM POWDER Frank E Dempsey & Sons 800 bgs (44709 lbs) (Lica Maersk) Dubai, 10/9.
A E Pellet 880 bgs (44751 lbs) (Vishva Pallav) Algeciras, 10/9.
Celanese 720 bgs (40000 lbs) (Vishva Pallav) Algeciras, 10/9.
GUM ARABIC TFL Sales 6200 bgs (806672 lbs) (Dart Americana) Felixstowe, 10/6.
HELIUM REFRIGERATED LIQUID Hasman & Baxt 1 tnk (38581 lbs) (Gina S) Antwerp, 10/10.
KHL Flavors 215 bgs (24306 lbs) (Americana) Valencia, 10/14.
William E Martin 1386 bgs (69334 lbs) (Freedom) Marseille, 10/6.
156 bls (24218 lbs) (Sea Land Pioneer) Algeciras, 10/8.
HEXYLENE GLYCOL ICC Ind 78 dms (34742 lbs) (Lloyd Pacifico) Santos, 10/8.
HIDE GLUE Goff & Page 800 bgs (80287 lbs) (Holstensailor) Santos, 10/8.
Taub & Cannel 360 bgs (36690 lbs) (Jadran Express) Koper, 10/6.
HYDROFLUORIC ACID Quadra Chemicals 140 dms (38426 lbs) (Verrazano Bridge) Kobe, 10/13.
HYDROGENATED CASTOR OIL Alnor Oil 40 bgs (20397 lbs) (Zeus) Santos, 8/20.
United Catalysts 20 plt (40794 lbs) (Alison) Santos, 10/11.
HYDROXYETHYL HYDROXYPROPRYLDIAMINE 82 dms (38056 lbs) (Clarence) Rotterdam, 10/9.
HYDROXYLAMINE HYDROCHLORIDE A & S 100 dms (11905 lbs) (Ming Peace) Yokohama, 10/6.

I-L

ISOCYANURIC ACID Atlas Intermodal Transport 400 dms (42000 lbs) (Ming Peace) Kaohsiung, 10/6.
ISOPHORONE DIAMINE Nuodex 80 dms (35538 lbs) (Clarence) Bremerhaven, 10/9.
160 dms (7143 lbs) (Wladyslaw Sikorsk) Rotterdam, 10/14
ISOPHORONE DIISOCYANATE A Burghart Shpg 400 bgs (18157 lbs) (Clarence) Rotterdam, 10/9.
Nuodex 400 bgs (18157 lbs) (Claernce) Rotterdam, 10/9
ISOPHTHALIC ACID Sisac 700 bgs (39683 lbs) (Ever Superb) Leghorn, 10/9
ISOPHYTOL 1 tnk (34744 lbs) (Atlantic Star) Rotterdam, 10/6.
ISOPROPYL ALCOHOL 1 bks (1114306 lbs) (Stolt Excellence) Rotterdam, 10/8.
ISOPROPYL ETHER 1 bks (551106 lbs) (Stolt Excellence) Rotterdam, 10/8
ISOSTEARYL ALCOHOL Uniglobe Kisco 34 dms (14392 lbs) (New Jersey Maru) Tokyo, 10/6.
LAMPONG BLACK PEPPER A Kazemi 215 bgs (33069 lbs) (Saudi Makkha) Singapore, 10/11.
Buchanan Trdg 200 bgs (33069 lbs) (Saudi Makkah) Singapore, 10/11.
DHT 215 bgs (33069 lbs) (Saudi Makkah) Singapore, 10/11.
DMT 400 bgs (66138 lbs) (Saudi Makkah) Singapore, 10/11.
East West Intl 215 bgs (33069 lbs) (Saudi Makkah) Singapore, 10/11.
LAVANDER ESSENTIAL Fernando Roque Tisa 2 dms (485 lbs) (Almudena) Barcelona, 10/4.
LEMON OIL Centiflor Mfg 25 dms (11138 lbs) (Lloyd Pacifico) Buenos Aires, 10/8.
Citrus & Allied Essences 25 dms (11131 lbs) (Lloyd Pacifico) Buenos Aires, 10/8.
Fritzsche Dodge & Olcott 25 dms (11072 lbs) (Lloyd Pacifoco) Buenos Aires, 10/8.
20 dms (8878 lbs) (Lloyd Pacifico) Buenos Aires, 10/8.
Polarome Mfg 60 dms (43431 lbs) (Holstensailor) Buenos Aires, 10/8.
LIME OIL Citrus & Allied Essences 1 dms (400 l bs) (Saint Louis) Haina, 10/6.
Citrus & Allied Essences 8 dms (3578 lbs) (Aconcagua) Callao, 10/4.
2 dms (802 lbs) (Saint Louis) Haina, 10/6.
LINALOL 160 dms (68078 lbs) (Atlantic Star) LeHavre, 10/6.
LITHIUM ALKYLS Fluka Chemical 1 bxs (20 lbs) (Sea Land Express) Rotterdam, 10/8.
LITHIUM CARBONATE Canadian Reynolds Metals 2400 bgs (124902 lbs) (Aconcagua) Antofagasta, 10/4.
Ferro Ind Products 600 bgs (31094 lbs) (Aconcagua) Antofagasta, 10/4.
LOW DENSITY POLYETHYLENE Mobil 29 con (1102454 lbs) (Saudi Makkah) Damman, 10/11.

M-N

MACE OIL Bartel Shpg 6 dms (2482 lbs) (Ever Linking) Singapore, 10/6.
Cantzlaar Mirandolle 5 dms (2238 lbs) (Ever Linking) Singapore, 10/6.
Citroil Enterprises 13 dms (5772 lbs) (Ever Linking) Singapore, 10/6.
59 dms (26194 lbs) (Ever Linking) Singapore, 10/6.
MAGNESIUM CHLORIDE Potash Import & Chemical 420 bgs (42276 lbs) (Gina S) Bremen, 10/10.
MAGNESIUM CHLORIDE FLAKES Potash Import & Chemical 1260 pkg (128818 lbs) (Sea Land Express) Bremerhaven, 10/6.
MAGNESIUM HYDROXIDE GRADE 23 bgs (534 lbs) (New Jersey Maru) Kobe, 10/6.
MAGNESIUM SULPHATE ANHYDROUS Potash Import & Chemical 800 bgs (80888 lbs) (Numberg Express) Bremerhaven, 10/8.
MELAMINE MOULDING COMPOUND 820 bgs (45194 lbs) (Zim New York) Haifa, 10/8.
MERCURIC ACETATE POWDER Troy Chemical 200 dms (24692 lbs) (Almudena) Valencia, 10/4.
MERCURIC CHLORIDE Thorchem 49 dms (5886 lbs) (Dart Americana) Felixstowe, 10/6.
MERCUROUS CHLORIDE CALOMEL Fernando Roque Tisa 10 dms (1146 lbs) (Almudena) Barcelona, 10/4.
MERCURY METAL Chi Mei Metal 100 cs (8377 lbs) (Verrazano Bridge) Hong Kong, 10/13.
META AMINO PHENOL FL INTERMEDIAT Montedison 160 dms (39083 lbs) (Zim New York) Barcelona, 10/8.
META TOLUIC ACID 1440 bgs (80635 lbs) (Ming Peace) Kobe, 10/6.
METANILIC ACID CL O NITROANILINE Montedison 64 pkg (9866 lbs) (Zim New York) Barcelona, 10/8.
METANILIC ACID POWDER Silvey Shpg 360 bgs (39921 lbs) (Lica Maersk) Dubai, 10/9.
METHYL CELLULOSE Mitrans 450 bgs (20397 lbs) (Ming Peace) Yokohama, 10/6.
300 dms (37037 lbs) (Ming Peace) Yokohama, 10/6.
METHYL DIHYDROJASMONATE Mitsui 11 dms (4899 lbs) (Ming Peace) Kobe, 10/6.
METHYL METHACRYLATE MONOMER 1 tnk (39793 lbs) (Clarence) Rotterdam, 10/9.
METHYLPENTENE POLYMERS Mitsui 500 bgs (22708 lbs) (Zim Montreal) Osaka, 10/9.
MONOCHLORACETIC ACID 880 crt (277780 lbs) (Numberg Express) Antwerp, 10/8.
MONOCHLORACETIC ACID FLAKES 1188 bgs (134260 lbs) (Numberg Express) Antwerp, 10/8.
MONOCHLORACETYL CHLORIDE 4 dms (2425 lbs) (Ming Peace) Yokohama, 10/6.
MONOPENTAERYTHRITOL Recochem 1400 bgs (79862 lbs) (Aconcagua) Valparaiso, 10/4.
MONOSODIUM GLUTAMATE Ajinimoto 700 bgs (39198 lbs) (Alison) Santos, 10/11.
Ajinomoto 3500 bgs (195989 lbs) (Zeus) Santos, 8/20.
20 dms (2167 lbs) (Zeus) Santos, 8/20.
3500 bgs (195923 lbs) (Alison) Santos, 10/11.
LEP Transport 2370 bgs (119048 lbs) (new Jersey Maru) Kobe, 10/6.
Pearson Intl 720 bgs (39683 lbs) (American Washingt) Kaohsiung, 10/6.
MONOSODIUM GLUTAMATE FINE CRYSTA MLM Express 720 bgs (42064 lbs) (Verrazano B ridge) Busan, 10/13.
MUNTOK WHITE PEPPER Atlanta Textile 120 bgs (22575 lbs) (Saudi Makkah) Singapore, 10/11.
Central Indonesian Trdg 300 bgs (56438 lbs) (Saudi Makkah) Singapore, 10/11.
DMT 616 bgs (112946 lbs) (Saudi Makkah) Pangkalpinan, 10/11.
Gel Spice 368 bgs (70803 lbs) (Saudi Makkah) Pangkalpinan, 10/11.
Jentzen & Daeke 360 bgs (77690 lbs) (Saudi Makkah) Pangkalpinan, 10/11.
KHL Flavors 125 bgs (22597 lbs) (Saudi Makkah) Pangkalpinan, 10/11.
Louis Furth 188 bgs (36100 lbs) (Saudi Makkah) Pangkalpinan, 10/11
Ludwig Mueller 300 bgs (58878 lbs) (Saudi Makkah) Pangkalpinan, 10/11.
Reliable Mercantile 360 bgs (69974 lbs) (Saudi Makkah) Pangkaplinan, 10/11.
N BUTYL ISOCYANATE Mobay Chemical 32 dms (14603 lbs) (Numberg Express) Antwerp, 10/8.
N BUTYL METHACRYLATE MONOMER Kiesserling American 1 tnk (38625 lbs) (Gina S) Felixstowe, 1/10.
2 tnk (79520 lbs) (Clarenco) Rotterdam, 10/9
N HEPTYL ALDEHYDE Millmaster Onyx Group 1 tnk (33202 lbs) (Sea Land Pioneer) Algeciras, 10/8.
N NONANAL INTERMEDIATES Aroma Resources 3 dms (1210 lbs) (Ming Peace) Yokohama, 10/6.
N R SULPHONATE T F CM NR 720 bgs (41105 lbs) (Nurnberg Express) Rotterdam, 10/8.
NICOTINAMIDE FEEDGRADE Vitachem Reilly Tar 800 bgs (44621 lbs) (Nurnberg Express) Antwerp, 10/8.
NIGROSINE Inter Maritime Fwdg 50 dms (5512 lbs) (Verrazano Bridge) Kobe, 10/13.
NUTMEG OIL JPM Imports 12 mix (1658 lbs) (Lica Maersk) Marseille, 10/9.
24 dms (9920 lbs) (Cape Corfu) Padang, 10/9.
NUTMEGS Leyden Customs Expediters 340 bgs [illegible] (Gina S) Antwerp, 10/10.

O-P

O CHLORO P NITRANILINE TRF 92 cks (37716 lbs) (Numberg Express) Rotterdam, 10/8.
OREGANO Dromi 320 bgs (8995 lbs) (Aconcagua) Valparaiso, 10/4.
ORTH AMINOPHENOL Rhone Poulenc 360 dms (43651 lbs) (Freedom) Marseille, 10/6.
ORTHO CHLOR BENZALDEHYDE Daniel F Young 20 dms (11243 lbs) (Ming Peace) Yokohama, 10/6.
ORTHO NITROCHLOROBENZENE Prochimie Intl 2 tnk (83334 lbs) (Atlantic Star) LeHavre, 10/6.
ORTHO TOLYBIGUANIDE Dunlap Alpers & Mott 18 bgs (1023 lbs) (New Jersey Maru) Tokyo, 10/6.
ORTHO XYLENE 1 bks (4629724 lbs) (Stolt Excellence) Rotterdam, 10/8.
1 bks (4305643 lbs) (Stolt Entente) Rotterdam, 10/13.
OXYTETRACYCLINE HYDROCHLORIDE Helm New York Chemical 100 dms (11905 lbs) (Jadran Express) Rijeka, 10/6.
P DICHLOROANILINE D S 23 dms (5681 lbs) (Numberg Express) Rotterdam, 10/8.
PAPRIKA BDP Intl 200 bgs (22156 lbs) (Lica Maersk) Valencia, 10/9.
Intl Brokers 400 bgs (44304 lbs) (Freedom) Valencia, 10/6.
PARA AMINO PHENYL Parson 100 bgs (11839 lbs) (Lica Maersk) Dubai, 10/9.
PARA DICHLOROBENZENE Sogem 600 bgs (33466 lbs) (Verrazano Bridge) Kobe, 10/13.
PARA TOLUENESULFONIC ACID American Cyanamid 900 bgs (40437 lbs) (Ming Peace) Yokohama, 10/6.
PARAFFIN WAX Diana Mfg 30 bxs (1168 lbs) (Numberg Express) Hamburg, 10/8.
PARAFORMALDEHYDE Colt Chemicals 34 bbg (60971 lbs) (Sea Land Pioneer) Algeciras, 10/8.
T R America Chemicals 22 bbg (49714 lbs) (Sea Land Pioneer) Algeciras, 10/8.
PENTAERYTHRITOL Degussa 500 bgs (22266 lbs) (Dart Americana) Bremerhaven, 10/6.
Degussa 500 bgs (22286 lbs) (Nurnberg Express) Bremerhaven, 10/8.
PERCHLOROETHYLENE 1 bks (1567067 lbs) (Stolt Excellence) Rotterdam, 10/8.
Thorson Chemical 1 bks (3294171 lbs) (Espoir) Constanza, 10/22.
PETIGRAIN ABSOLUTE 13 dms (5487 lbs) (Lloyd Pacifico) Rio D Janeiro, 10/6.
PHENOXY ACETIC ACID Bristol Myers 792 bgs (45939 lbs) (Wladyslaw Sikorsk) Rotterdam, 10/14.
PHOSPHORIC ACID 1 bks (2210100 lbs) (Stolt Excellence) Rotterdam, 10/8.
PHTHALOCYANINE BLUE CRUDE Dainichiseika Color & Chemic 800 bgs (41411 lbs) (Ming Peace) Yokohama, 10/6.

Continued on Page 53

CHEMICAL PRICES

WEEK ENDING NOV 7, 1986

This chemical prices section contains spot quotations and/or list prices of suppliers of chemicals and related materials on a New York or other indicated basis. The listings are based on price information obtained from suppliers. Note that posted prices do not necessarily represent levels at which transactions actually may have occurred. They do not represent bid and asked prices, nor a range of prices over the week. Price ranges may represent quotations of different suppliers as well as differences in quantity, quality and location. All matters under this heading are fully covered by copyright.

An index of weekly chemical market reports is on the back cover.

A

Abies alba, dms. ... kilo	25.00	27.00
Acetaldehyde, 99%, tanks, frt. alld. lb.	.37	–
Prices 1c. higher in West.		
Acetaminophen (see N-Acetyl-p-aminophenol)		
Acetanilide, tech, flaked, bgs, t.l., f.o.b. works ... lb.	1.29	–
Acetic acid, tech., tanks, divd. E ... lb.	.25	–
Acetic anhydride, tanks, divd. E ... lb.	.43½	–
Acetic anhydride prices 1c. higher in West.		
Acetoacetanilide, dms., t.l., divd. .. lb.	1.29	–
Acetoacet-o-anisidide, dms., t.l., divd. ... lb.	2.70	–
Acetoacet-o-chloroanilide, dms., t.l., divd. ... lb.	2.85	–
Acetoacet-o-toluidide, dms., t.l., divd. ... lb.	1.58	–
Acetoacet-m-xylidide, dms., t.l., divd. ... lb.	3.33	–
Acetone, tanks, divd. E. ... lb.	.25	–
divd. Zone 2 (Calif.) ... lb.	.27	–
divd. Zone 3 (W. of Rockies excluding Calif.) ... lb.	.27	–
Acetonitrile, tanks, frt. alld. ... lb.	.53	.54½
Acetophenetidin (see Phenacetin).		
Acetophenone, tech., tanks, f.o.b. works ... lb.	.76	.85
perfume grade, extra, cns. ... lb.	2.15	–
N-Acetyl-p-aminophenol, c.l., t.l. works ... kilo	5.95	6.64
Acetylene black, imp., 50% compressed, 12½-lb. bgs. c.l., t.l. frt. extra ... lb.	.98	–
100%, 25-lb. bgs., same basis ... lb.	.95½	–
Acetylene tetrabromide, tanks, f.o.b. works ... lb.	.97	–
Acetylsalicylic acid, USP (see Aspirin).		
Acetyltributyl citrate, bulk, f.o.b. works ... lb.	1.28	–
Acetyltriethyl citrate, bulk, f.o.b. works ... lb.	2.08	–
Acrolein, tech., tanks, works ... lb.	.82	–
Acrylamide, solid, t.l. works ... lb.	1.00	–
soln., 100% basis tanks, works .. lb.	.74	.77
Acrylic acid, glacial, reg., tanks, divd. ... lb.	.87	–
tech., tanks, frt. alld. ... lb.	.60	–
Acrylonitrile, tanks, works ... lb.	.39½	.45½
Acrylonitrile-butadiene-styrene resin, high-impact, nat., t.l., dms., divd. ... lb.	1.09	1.12
medium-impact, nat., same basis lb.	1.05	1.08
low-impact, nat., same basis ... lb.	.98	1.01
Adipic acid, resin grade, bulk, hopper cars, frt. equald. ... lb.	.57	–
bgs., t.l., c.l. frt. equald. ... lb.	.59	–
Agar USP, powd., 60 to 100 mesh., dms. ... lb.	9.50	9.85
Alcohol, syn. C-6 to C-10, tanks, f.o.b. works ... lb.	.38	–
C-12 to C-13, tanks, divd. ... lb.	.57	.59
C-14 to C-15, tanks, divd. ... lb.	.57	
C-16 to C-18, tanks, divd. ... lb.	.60	
Aldehyde, C-6, dms. ... lb.	4.10	5.70
C-7, dms. ... lb.	1.95	–
C-8, dms. ... lb.	4.30	6.30
C-10 dms. ... lb.	4.30	5.35
Algin (see Sodium alginate.)		
Alkali blue, dry, flushed, 110-lb. dms., divd. ... lb.	3.72	3.83
Alkali blue prices 1c. higher W. of Rockies.		
Allspice Guatemalan / Honduran, bgs. ... lb.	.87	–
Jamaican, bgs. ... lb.	1.05	–
Allyl alcohol, tanks, f.o.b., Bayport, Tex. ... lb.	.90	–
Allyl bromide, 500-kilo dms. 2,000 lbs. or more, works ... lb.	5.50	–
Allyl caproate, 25-lb. cns. ... lb.	3.90	4.50
Allyl chloride, tanks, f.o.b. works ... lb.	.65	–
Allyl isothiocyanate, bots. ... lb.	5.40	6.90
Almond oil, artif., bitter (see Benzaldehyde.)		
Almond oil, nat. bitter, NF f.f.p.a. bots. ... lb.	3.50	3.60
sweet ... lb.	1.24	1.50
Aloe, Cape, cs. ... lb.	2.00	–
powd., cs. ... lb.	2.25	2.75
Curacao, kgs. ... lb.	2.60	–
powd., kgs. ... lb.	3.00	–
Aloin, NF, dms. ... lb.	6.00	6.70
Alum, ammonium, tech. gran., bgs., c.l., t.l., works ... 100 lb.	35.00	–
FCC powd., fiber dms., works 100 lbs.	55.00	–
Alum, potassium, tech. gran. bgs., c.l., t.l., works ... 100 lbs.	35.00	–
FCC powd. fiber dms., works . 100 lbs.	55.00	–
Alumina, activated, gran., 100-lb. bgs., 40,000-lb. min. c.l., works. ton	821.00	–
calcined, bulk, same basis ... ton	354.00	–
100-lb. bgs., same basis ... ton	380.00	–
hydrated, white, bulk, same basis ... ton	190.00	–
100-lb. bgs., same basis ... ton	224.00	–
Aluminum acetate, basic, dms., l.c.l., works ... lb.	3.25	–
Aluminum chloride, anhyd., soln., 500-600 lb. dms., c.l., t.l., works, frt. equald. ... lb.	.53	–
bulk, same basis ... lb.	.48	–
semi-bulk bins, same basis ... lb.	.52	–
Aluminum chloride, coml., soln., 32° tanks, works ... 100 lbs.	15.00	–
ret. dms., c.l., works ... 100 lbs.	12.00	–
non-ret. dms., same basis . 100 lbs.	20.00	–
Aluminum formate, dibasic, liq. 8% Al_2O_3 t.l., works ... lb.	.55	–
Aluminum hydrate (see Alumina, hydrated)		
Aluminum hydroxide, dried, gel, NF, 75-lb. dms., c.l., t.l., works. lb.	2.75	3.50
Aluminum metal, 99½% or more, 50-lb. pigs., 30,000-lb. lots, frt. alld. ... lb.	.78	–
Aluminum oxide amorphous (see Alumina, calcined).		
Aluminum paste, leafing grade, std., lining, 2,400 lb. lots, divd. ... lb.	1.40	–
lining, extra-fine, same basis ... lb.	1.99	2.14
Aluminum phenolsulfonate, purif., 100-kilo dms., t.l. ... kilo	6.46	–
Aluminum powder, leafing grade, std. lining, 2,400 lb. lots, divd. . lb.	3.17	–
extra fine, lining, same basis ... lb.	4.04	–
Aluminum stearate, bgs., c.l. ... lb.	1.25	1.36
Aluminum sulfate, coml., grd., 100 lb. bgs., c.l., works, frt. equald., basis 17% Al_2O_3 East and Gulf Coasts ... ton	205.00	–
West Coast ... ton	220.80	–
liq., tanks, N.E. same basis ... ton	145.00	–
iron-free, dry, bgs., c.l. same basis ... ton	300.00	–
liq., tanks, same basis ... ton	225.00	265.00
Aluminum sulfate, USP, gran., dms. lb.	–	.337
Aminoacetic acid, USP, dms., 20,000 lbs., f.o.b. works ... lb.	2.12	–
tech., t.l., same basis ... lb.	1.88	–
p-Aminobenzoic acid, 1,000 kilos or more, dms., f.o.b. works . kilo	9.60	10.10
2-Amino-4-chlorophenol dry and grd., 14,000 lbs. or more, frt. alld. lb.	5.79	–
Aminoethyl ethanolamine, tanks, frt. collect ... lb.	1.33½	–
N-Aminoethyl piperazine, tanks, f.o.b., frt. collect. ... lb.	1.05	–
2-Amino-2-ethyl-1,3-propanediol dms., t.l. f.o.b. works ... lb.	1.82	–
2-Amino-2-methyl-1-propanol, 95%, dms., c.l., t.l., f.o.b. works . lb.	.95	–
tanks, f.o.b. works ... lb.	.89	–
o-Aminophenol, dms., f.o.b. Charlotte, N.C. ... lb.	3.95	–
p-Aminophenol, t.l. dms., f.o.b. Raleigh, N.C. ... kilo	7.15	–
p-Aminosalicylic acid, USP, 50-kilo dms., t.l. ... kilo	18.50	–
Ammonia, anhyd., fertilizer, wholesale, tanks, divd. Midwest terminals ... ton	165.00	170.00
tankcars, f.o.b. Gulf Coast ... ton	80.00	85.00
aqueous, 29.4% NH_3, anhyd. basis, tanks, frt. equald. E. of Rockies ... ton	260.00	315.00
Ammoniacal liquor (see Ammonia, aqueous).		
Ammoniac sal, galvanizing grade, bgs., c.l., f.o.b. works ... 100 lbs	28.60	–
Ammoniac sal. white (see Ammonium chloride coml.).		
Ammonium biborate, gran., dms., c.l. works ... lb.	.90	–
Ammonium biborate powder 15c. per lb. higher.		
Ammonium bicarbonate, 300-lb. fib. dms., c.l., works ... 100 lbs.	26.00	–
bgs., c.l. ... 100 lbs.	25.00	–
Ammonium bichromate, photo-litho grade, gran. 100-lb. dms., l.t.l. works ... lb.	2.00	–
Ammonium bifluoride, bgs., t.l., works ... lb.	.70	–
Ammonium bromide, dom. NF, gran., dms., c.l., t.l., f.o.b. works . lb.	1.31	–
Ammonium chloride, white, tech., fine gran., bgs., c.l., works ... 100 lbs.	18.00	–
USP, gran., dms. ... lb.	.40	.53
Ammonium citrate, dibasic, 250-lb. dms. f.o.b. works ... lb.	2.79	–
Ammonium dimolybdate, approx. 85%, 24,000 lbs. or more . lb.	5.48	–
Ammonium fluoborate, tech., dms., c.l., t.l., works, frt. equald. . lb.	1.79	–
Ammonium heptamolybdate, cryst., dms., 24,000 lbs. f.o.b. works ... lb.	5.57	–
Ammonium lauryl sulfate, tanks, f.o.b. works ... lb.	.29	.32
Ammonium lignin, sulfonate, bulk, f.o.b. Hoquiam, Ore. ... ton	72.00	–
Ammonium nitrate, dom., fertilizer grade, 33.5% N, bulk, S.E. divd. ... ton	130.00	135.00
Ammonium oxalate, tech., fine. gran. 300-lb. dms., t.l., f.o.b. works ... lb.	1.42	1.68
Ammonium pentaborate gran. bgs., c.l., works ... lb.	.76	–
Ammonium pentaborate powder 20c. per lb. higher.		
Ammonium persulfate, 225-lb. dms, 24,000 lbs. or more, f.o.b. works ... lb.	.58	–
55-lb. bgs., same basis ... lb.	.56½	–
Ammonium phosphate (see Di- and monoammonium phosphates).		
Ammonium silicofluoride, dms. c.l., t.l., works ... lb.	.30¾	–
Ammonium sulfate, lg. gran., bulk, c.l., works ... ton	80.00	90.00
std., coml., bulk, f.o.b. works .. ton	60.00	70.00
tech., bgs., c.l., t.l., works ... ton	108.00	120.00
Ammonium sulfide, liq., 40-44% tanks, 100% basis, frt. equald. .ton.	460.00	–
Ammonium sulfocyanide, tech. (see Ammonium thiocyanate).		
Ammonium thiocyanate, tech., cryst., bgs., c.l., works ... lb.	1.02	–
tech soln., 50%, tanks, frt. equald., ... lb.	.93	–
Ammonium thiosulfate, photographic, 60%, tanks, f.o.b. works .. lb.	.13	–
Ammonium zirconyl carbonate, soln., bulk ... lb.	.72	–
Amyl acetate, primary mixed isomers, tanks, divd. ... lb.	.57	–
Amyl alcohol, primary mixed isomers, tanks, frt. alld. ... lb.	.46½	–
Amyl cinnamic aldehyde, dms. ... lb.	2.35	2.50
p-tert-Amylphenol, bulk, works ... lb.	.91	1.03
Amyris oil, dms. ... lb.	11.00	–
Anethole, tech., dms. ... kilo	10.20	–
USP, dms. ... lb.	3.65	4.60
Angelica root oil, bots. ... kilo	700.00	–
Aniline, tanks, f.o.b. ... lb.	.33	.35½
Anise oil, dms. ... kilo	6.90	–
Anise seed, Chinese, bgs. ... lb.	1.30	–
Spanish, bgs. ... lb.	1.10	–
Turkish, bgs. ... lb.	1.06	1.13
Anisic aldehyde, cns., dms. ... lb.	4.80	–
o-Anisidine, imp., dms., divd. ... lb.	2.27	5.40
p-Anisidine, imp., cast solid, dms., works ... lb.	1.90	–
flakes, same basis ... lb.	2.25	–
Anthranilic acid, purif., 98% min., dms., t.l., frt. alld. ... lb.	1.70	–
Antimony fluoborate, liq. conc., 175-lb. dms., t.l., works ... lb.	3.02	–
Antimony metal, bulk, c.l., mines .. lb.	1.35	1.39
Antimony oxide, high-tint, bgs., c.l., frt. alld. E. of Rockies ... lb.	1.35	1.50
Antimony trichloride, anhyd., solid, dms., t.l. works ... lb.	3.60	–
Apomorphine hydrochloride, NF, bots., ... gm.	15.00	–
Apricot kernel oil, dms. ... lb.	2.05	–
Arabic gum, powd., bbls. ... lb.	1.85	2.15
spray dried ... lb.	2.00	2.50
USP grade ... lb.	6.75	8.25
Aromatic petroleum solvents (see Solvent, naphtha, petroleum, aromatic).		
Arsenic, crude (see Arsenious trioxide).		
Arylid, red (see Napthol, arylid red).		
Arsenious trioxide, 99%, bulk, c.l., f.o.b. warehouse ... lb.	.42	.45
Asbestine (see Talc, fibrous).		
Ascorbic acid, USP, 100 kilos, divd. ... kilo.	11.00	–
Ash, black (see Barium sulfide).		
Asphalt gilsonite, (see Gilsonite).		
Asphalt petroleum cutback, tanks, E. Coast ... gal.	.86	–
emulsion, tanks, tankwagons, E. Coast ... gal.	.68	–
steam-refined, 40-300 penetration, tanks, tankwagon ... ton	170.00	–
steep roofing grade, bulk tankwagon ... ton	175.00	–
Aspirin, USP, cryst., powd., 250-lb. dms., c.l., f.o.b. ... lb.	1.95	–
10% starch granulation, white, 250-lb. dm, c.l., f.o.b. ... lb.	1.97	–
16% starch granulation, white, same basis ... lb.	2.80	–
Freight equald. shipt. identical quantity over standard routes from N.Y., Phila., Midland, Mich., Chicago and St. Louis.		
Atropine sulfate, USP, bots. ... oz.	10.00	11.00
Avocado oil, dms. ... lb.	4.00	4.50
Azelaic acid, tech., 50-lb. bgs., t.l., c.l., divd. ... lb.	1.23	–
Azo orange, bbls., divd. ... lb.	4.80	–
Azo yellow, 10 G, bgs., divd. E. of Rockies ... lb.	4.40	–
Azo G yellow pigment, bgs., same basis ... lb.	2.45	–

B

Bacitracin, USP, non-sterile, one billion units or more ... million units	6.30	6.60
Barbital, NF, 50-kilo dms., divd. .. kilo	22.50	–
Barbital-sodium, NF, 50-kilo dms. divd. ... kilo	23.00	–
Barite, dry-grd., Southern, off-color, coarse, bgs., c.l., f.o.b. mines lb.	.09	.11
water-grd., white, bgs., c.l., f.o.b. works ... lb.	.13	–
unbleached, extra-fine, pigment grade, c.l., f.o.b. works .. ton	160.00	–
Barium carbonate, precip., bulk, c.l., works, frt. equald. ... lb.	.25	–
bgs., same basis ... lb.	.25½	–
photo grade, bgs., same basis ton	510.00	–
Barium chlorate, 100-lb. dms., 1-10 dm. lots, works ... lb.	1.04	–
Barium chloride, tech., cryst., bgs., c.l., works ... ton	470.00	–
anhyd. drums c.l., same basis. ton	590.00	–
Barium chloride, purif., cryst. 400-lb. dms., works ... lb.	3.76	–
Barium monohydrate, 55-lb. bgs., c.l., t.l. f.o.b. works ... 100 lbs.	46.00	–
octahydrate, cryst., bgs., same basis ... 100 lbs.	33.00	–
Barium nitrate, 100-lb. bgs., t.l., works ... 100 lbs.	32.50	–
Barium oxide, grd., dms., c.l., divd. ... 100 lbs.	31.25	–
tote bins, same basis, .. 100 lbs.	30.00	–
Barium peroxide, 700-lb. dms., c.l., t.l., works ... lb.	.30	–
Barium stearate, bulk, t.l., f.o.b. dest. ... lb.	1.05	–
Barium sulfate, tech. (see Barite and Blanc fixe).		
Barium sulfate, USP, X-ray diagnosis grade, powd., 25 kilo bgs., 10,000 kilo lots ... lb.	.58½	–
Barium sulfide (black ash), dms., c.l., works ... ton	460.00	–
Basil Egyptian ... lb.	.67	.90
French ... lb.	.88	.90
Basil oil, Comores ... lb.	55.00	–
Basil oil, Egyptian ... lb.	62.00	–
Battery acid, t.l., f.o.b., works ... ton	52.00	70.75
Bauxite, calcined, refractory grade, 87%-88% Al_2O_3, Baltimore & Mobile ... metric-ton	229.28	–
Bayol, NF, 50-55%, dms. ... lb.	11.00	–
Bayberry wax, bgs. ... lb.	2.70	3.00
Beeswax, refd., bleached white, bricks, 100-lb. ctns. ... lb.	3.10	3.20
white, slabs, 100-lb. ctns. ... lb.	3.05	3.10
yellow, bricks, 100-lb. ctns. ... lb.	3.00	3.10
yellow, slabs, 100-lb. ctns. ... lb.	2.95	3.05
Bentonite, dom., c.l. bags, f.o.b. works ... ton	43.50	–
Benzaldehyde, NF, dms. ... lb.	1.25	–
tech, dms., c.l., t.l. ... lb.	.73	.83
Prices are 4c. per lb. higher West of the Rockies.		
Benzene, indust. or nitration, barges, f.o.b.		
Baton Rouge, La. ... gal.	.87	–
Baytown, Tex. ... gal.	.87	–
Beaumont, Tex. ... gal.	.87	–
Catlettsburg, Ky. ... gal.	.87	–
Chicago district ... gal.	.87	–
Chocolate Bayou, Tex. ... gal.	.87	–
Clairton, Pa. ... gal.	.87	–
Corpus Christi, Tex. ... gal.	.87	–
Deer Park, Tex. ... gal.	.87	–
Houston district, spot ... gal.	.85	.86
Lima, Ohio ... gal.	.90	–
Wood River, Ill. ... gal.	.87	–
Benzene hexachloride, 99% gamma isomer (see Lindane).		
Benzidine orange, powd., bgs., divd. lb.	4.90	8.70
liq. containers, divd. ... lb.	3.36	3.89
Benzidine yellow, AAA, bgs., divd. . lb.	5.80	6.05
AAOA, bgs., divd. ... lb.	7.35	7.40
AAOT, bgs., divd. ... lb.	5.95	6.20
Benzocaine, USP, dms., 1,000 kg. lots, f.o.b., works ... kg.	10.00	11.50
Benzodihydropyrone, dms. ... lb.	12.50	–
Benzoic acid, tech., bgs., c.l., t.l., f.o.b. works ... lb.	.55	.58
USP cryst., dms., ton lots same basis ... lb.	1.73	1.75
Benzoin gum, Sumatra, cs. ... lb.	1.80	–
Benzophenone, N.F., 1,000 lbs. or more, f.o.b. ... lb.	3.50	3.60
NF., 1,000 kilos or more, f.o.b. ... kg.	7.46	–
tech, 1,000 kilos or more, fob works ... kgs.	4.35	–
2,2-Benzothiazyl disulfide (see Mercaptobenzothiazyl disulfide).		
Benzotriazole, flake, dms., 1,000 lbs. or more, f.o.b. works ... lb.	6.10	–
powd., dms., 1,000 lbs. or more, same basis ... lb.	6.20	–
photo-grade, dms., 1,000 lbs. or more, same basis ... lb.	9.90	–
Benzotrichloride, refd., dms. t.l., frt. equald. ... lb.	.87	–
tanks, frt. equald ... lb.	.80	–
Benzoyl chloride dms., c.l., works .. lb.	.57	.59
tanks, frt. equald. ... lb.	.74½	.75
Benzoyl peroxide, regular gran., 10,000-lb. lots or more, bgs., works, frt. equald. ... lb.	2.35	6.98
paste, 50% and 55% formulations, dms., pails, frt. equald. ... lb.	1.71	1.95
Benzyl acetate, dms. ... lb.	1.20	2.60
Benzyl alcohol, N.F. t.l. dms. frt. equald. ... lb.	1.26	1.85
tanks, same basis	1.37	1.43
photo grade, t.l., dms., same basis ... lb.	1.40	–
tanks, same basis	1.34	–
tech. grade, t.l., dms., same basis lb.	1.32	–
tanks, same basis.	1.28	–
Benzyl benzoate, dms. ... lb.	1.65	2.25
Benzyl chloride, tech., non-ret. dms., c.l., t.l., frt. equald. ... lb.	.59	–
tanks, f.o.b. ... lb.	.54	–
Benzyl cinnamate, 25-lb. cns. ... lb.	8.50	9.95
n-Benzyl-N,N-dimethylamine, t.l., dms., f.o.b. works ... lb.	2.30	–
Benzyl formate, dms. ... lb.	10.50	–
6-tert-Butyl-m-cresol (see Mono-tert-butyl-m-cresol).		
Benzyl isoeugenol, dms. ... lb.	15.60	–
Benzyl propionate, dms. ... lb.	3.35	–
Benzyl salicylate ... lb.	2.90	3.25
Benzylidine acetone, cns., bots. ... lb.	2.95	3.25
Bergamot oil ... kilo	44.75	–
Betahydroxynaphthoic acid (see b-Oxynaphthoic acid).		
Biotin, cryst. 500 gms. or more ... gm.	5.00	5.50
Biphenyl (see Diphenyl).		
Bismuth nitrate, purif. cryst., 100-lb dms., frt. equald. ... lb.	10.00	–
Bismuth oxychloride, 100-lb. dms., works ... lb.	17.20	–
Bismuth subcarbonate, USP, medium powd., 225-lb. dms., works. lb.	15.31	15.50
Bismuth subgallate, purif., 100-lb. dms., works ... lb.	10.50	–
Bismuth subnitrate NF, powd., 200-lb. dms., works ... lb.	14.45	–
Bismuth subsalicylate, purif. powd., 50-100 lb. dms., works ... lb.	17.00	–
Bismuth trioxide, reagent. powd., 100-lb. dms., works ... lb.	15.00	15.46
Bisphenol-A, epoxy grade, hopper cars, divd. ... lb.	.67	–
polycarbonate grade, same basis lb.	.71	–
Blanc fixe, syn., imp., bags ... lb.	.20	–
Bois de rose oil, Braz., dms. ... lb.	6.75	–
BON toner (red 48) dms., frt. alld. .. lb.	7.25	8.05
(red 52) dms., same basis ... lb.	6.50	7.90
Bonemeal, steamed, dom., bgs., c.l., f.o.b. Midwest plants ... ton	180.00	190.00
Bone phosphate, defluorinated of lime (see Defluorinated phosphate).		
Bone phosphate, precip. (see Calcium phosphate tribasic).		
Borax, tech. anhyd. 99%, bgs., c.l., works ... ton	647.00	–
bulk, c.l., works ... ton	602.00	–
Borax, tech., gran., decahydrate, 99½% bgs., c.l., works .. ton	237.00	–
bulk, c.l., works ... ton	192.00	–
tech., pentahydrate, gran. 99½%, bgs., c.l., works ... ton	285.00	–
bulk, c.l., works ... ton	220.00	–
Borax, NF (See Sodium borate).		
Boric acid, tech., gran., 99.9%, bgs., c.l., works ... ton	614.00	–
bulk, c.l., works ... ton	589.00	–
Boron trichloride, CP, 1,800-lb. cyls., works ... lb.	3.80	–
Boron trifluoride, 60-lb. cyls., t.l., f.o.b. works ... lb.	4.03	–
bulk, same basis ... lb.	3.47	–
Boron trifluoride, etherate, 500-lb. dms., t.l., f.o.b., works ... lb.	2.35	–
phenolate, 500-lb. dms., t.l., same basis ... lb.	1.65	–
Bromine, dms., t.l., works ... lb.	.87	–
bulk, 45,000-lb. min., works ... lb.	.33	.34½
purif., t.l., divd. ... lb.	.75	–
Bromine divd., prices for dms. and bulk shipped W. of Rockies, 1c.- per-lb. higher. Bulk t.t. prices 1c. to 2½c.-per- lb. higher for 30,000-lb. min. and 4c. to 5½c.-per-lb. higher for 15,000- lb. min.		
Bromochloromethane, dms., c.l., f.o.b. Midland ... lb.	1.12	–
Butadiene, tanks, f.o.b. ... lb.	.12½	.13
1,4-Butanediol, tanks, f.o.b., frt. equald. ... lb.	.80	–
dms., same basis ... lb.	.88	–
Butene-1, tanks, f.o.b. works ... lb.	.26	.28
n-Butyl acetate, syn., tanks, frt. alld. lb.	.52½	–
n-Butyl acrylate, tanks, frt. alld. E. .. lb.	.69	–
n-Butyl alcohol, syn., ferment, tanks, frt. alld. ... lb.	.34	–
sec-Butyl alcohol, syn., tanks, divd. lb.	.385	–
tert-Butyl alcohol, syn., tanks, divd. E. ... lb.	.70	–
Butyl aldehyde (see Butyraldehyde)		
Butyl benzyl phthalate, tanks, frt. alld. ... lb.	.59	–
Butyl chloride, tanks, works ... lb.	.99	1.00
Butyl cyclohexyl phthalate, tanks, divd. ... lb.	.74	–
n-Butyl ether, dms., c.l., t.l., works .. lb.	1.85	–
Butyl isodecyl phthalate, tanks, divd. ... lb.	.35	–
n-Butyl lactate, tanks, f.o.b. works . lb.	1.58	–
n-Butyllithium, 15% soln., 1,000-lb. lots or more, cyls., 100% basis, divd. ... lb.	15.45	–
tanks, 3,000-lb. min., 100% basis, divd. ... lb.	14.75	–
Butyl methacrylate, tanks, frt. equald. ... lb.	.88	–
Butyl octyl phthalate, tanks, divd. E. ... lb.	.40	.42
Butyl oleate, dist., dms., c.l. ... lb.	.70	.82
tanks ... lb.	.60	.75
p-tert-Butylphenol, tanks works ... lb.	.70	–
Butyl phthalate (see Dibutyl phthalate).		
Butyl stearate cosmetic, dms., 77 dms. or more ... lb.	.91	.97
tanks ... lb.	.92	–
Butyl stearate tech., t.l. ... lb.	.60	.62
tanks ... lb.	.55	.58
Butylamine (see Mono-, Di- and Tributylamine).		
tert-Butylamine, dms., c.l., t.l., f.o.b. works ... lb.	1.31	–
tanks, same basis ... lb.	1.17	–
Butylated hydroxyanisole, food grade, dms., divd. ... lb.	8.60	8.85
Butylated hydroxytoluene, food, feed grades, c.l., t.l., bgs., divd. . lb.	1.24	1.30
tech., bgs., c.l., t.l., divd. ... lb.	1.24	1.30
1,3-Butylene glycol, tanks, divd. ... lb.	.72	–
Butyraldehyde, tanks, divd. ... lb.	.29½	.38
Butyric acid, tanks, frt. alld. ... lb.	.44½	–
Butyric ether (see Ethyl butyrate).		
Butyrolactone, tanks, f.o.b. plant ... lb.	1.20	–
n-Butyronitrile, dms., c.l., divd. ... lb.	.93	–
tanks, divd. ... lb.	.54	–

C

Cadmium chloride, purif. cryst., 100-lb. dms., t.l., works ... lb.	3.73	–
Cadmium, CP, red, dark shade, bbls., 100-lb. lots, frt. alld., E. of Rockies ... lb.	11.33	16.35
light shade, bbls., same basis ... lb.	9.16	12.06
medium shade, bbls., same basis. lb.	10.69	15.20
medium-light shade, bbls., same basis ... lb.	10.26	14.50
Cadmium, CP yellow, all shades, bbls., 100-lb. lots, frt. alld., E. of Rockies ... lb.	6.10	7.07
Cadmium fluoborate, liq. conc., dms., t.l., works, frt. equald. ... lb.	2.27	–
medium-light shade, bbls., same basis ... lb.	3.22	–
Cadmium-mercury lithopone, maroon shade, bbls., frt. alld. E. of Rockies ... lb.	4.60	–
Cadmium metal ingots or sticks, ton lots, cs., divd. ... lb.	1.20	1.50
Cadmium nitrate, purif., flake 400-lb. dms., c.l., t.l., f.o.b. ship. pt. lb.	2.10	–
Cadmium-selenide-lithopone, orange, light shade, bbls., 400-lb. lots, frt. alld. E. of Rockies ... lb.	3.97	4.00
deep shade, bbls., same basis .. lb.	4.47	4.50
Cadmium-selenide lithopone, red, dark shade, bbls., same basis. . lb.	6.77	6.80
light shade, bbls., same basis ... lb.	5.27	5.30
medium light shade, bbls., same basis ... lb.	5.72	5.75
medium shade, bbls., same basis. lb.	6.37	6.40
maroon shade, bbls., same basis. lb.	7.47	–
Cadmium-selenide lithopone, yellow, all shades, bbls., same basis. . lb.	2.97	3.00
Cadmium sulfate, 50-lb. dms., any quantity, f.o.b. ship. pt. ... lb.	4.05	–
Caffeine, dom., USP, syn. cryst. anhyd., powd., 100-lb. dms., c.l., t.l., frt. alld. ... lb.	5.80	–
imp., cryst., anhyd., powd., dms., 10,000 lbs. or more ... lb.	5.80	–
Calamine, USP, dms. ... lb.	1.50	1.70
Calamus oil, dms. ... lb.	25.80	35.00
Calciferol (see Ergocalciferol).		
Calcium acetate, purif., powd., dms, t.l., works ... lb.	.87	–
Calcium carbide, std., generator size, bulk, c.l., f.o.b., works ... ton	402.00	–
Calcium carbonate, pulverized, 325-mesh, bgs., bulk, f.o.b. works ... ton	48.00	–
slurries, 54% solids, same basis ... ton	97.00	100.00
72% solids, same basis ... ton	109.27	–
quicklime, gran., ind., bulk, works ... ton	100.93	–
Calcium carbonate, coated, bgs., c.l., works ... lb.	.0830	.1600
Calcium carbonate, precip., bgs., c.l., t.l. ... ton	385.00	445.00
Calcium carbonate precip. medium, bgs., c.l., works. ... ton	110.00	150.00
precip. dense. bgs., c.l., surface treated, bgs., c.l., works .. ton	265.00	–
ultrafine, USP, bgs., c.l., works ... ton	217.00	225.00
Calcium chloride, conc., reg. grade. 77-80%, flake, bulk, c.l., works ... ton	153.00	–
100-lb. bgs., c.l., same basis ... ton	198.00	–
anhyd., 94-97%, flake or pellet, bulk, c.l., same basis ... ton	217.00	–
80-lb. bgs., c.l., same basis ... ton	279.00	–
brining grade, 80-lb. bags ... ton	285.00	–
Calcium chloride, liq., 100 percent basis, t.o., t.t., barge ... ton	99.75	–
45% same basis ... ton	118.00	–
Calcium chloride, USP, gran., 225-lb. dms., t.l., frt. equald. ... lb.	.90	–
Calcium citrate, purif., 200-lb. dms., 10,000 lbs. or more, f.o.b. works ... lb.	3.82	–
Calcium cyanamide, indust., anhyd. dms., works ... ton	400.00	450.00
Calcium gluconate, USP powd. t.l. . lb.	1.80	–
Calcium hydride, lump, dms., 25-1,000-lb. lots. works ... lb.	10.60	13.25
Calcium hypochlorite, 100-lb. dms., truckloads ship.t. E. of Rockies ... 100 lbs.	92.40	–
Calcium hypophosphite, dms., bulk, 500 kilos or more ... kilo	13.75	14.50
Calcium iodate, FCC dms., f.o.b. works ... lb.	5.50	–
Calcium iodide, 50-kilo dms., f.o.b. works ... kilo	23.65	25.65
Calcium lactate, NF, powd., pentahydrate, dms., 24,000 lbs. or more, f.o.b. works ... lb.	2.00	–
NF, gran., trihydrate, same basis. lb.	2.10	–
special gran., dried grade, same basis ... lb.	2.80	–
Calcium naphthenate, liq., 4% Ca., c.l., f.o.b. plant, E. of Rockies. . lb.	.85	–
d-Calcium pantothenate, USP, 100-500-kilo lots. ... kilo	12.50	–
dl-Calcium pantothenate, feed grade, f.o.b. frt. alld., 250 kilos or more ... kilo	8.00	8.50
dl-Calcium pantothenate, calcium chloride complex, feed grade, 160 grams per lb., f.o.b., frt. alld., 500 lbs or more ... lb.	2.75	–
Calcium phosphate, dibasic, feed grade, 18½% P. bulk, c.l., t.l., f.o.b. works ... ton	228.00	–
Calcium phosphate, dibasic, dihydrate, USP, bgs., c.l., t.l., works, frt. equald. ... 100 lbs.	62.50	–
anhyd., USP, same basis. . 100 lbs.	71.75	–
dentifrice grade, same basis. 100 lbs.	49.90	–
Calcium phosphate, monobasic, monohydrate, food grade, bgs., c.l., t.l., works, frt. equald. ... 100 lbs.	50.60	–
anhyd., food grade, same basis ... 100 lbs.	64.95	–
tribasic, NF precip., bgs., c.l., frt. equald. ... 100 lbs.	62.60	–
Calcium propionate, dms., 2,000 lbs. or more f.o.b. frt. alld. ... lb.	.50	.55
Calcium silicate, hydrated, bgs., c.l., works ... lb.	.07	–
Calcium silicate, paint grade (see Wollastonite).		
Calomel, NF, mild powd., 100-lb. dms., f.o.b. works ... lb.	8.50	–
Camphene chlorinated, 67-69% (see Toxaphene).		
Camphor, monobromated, dms., kgs. ... lb.	3.63	3.70
Camphor, syn., tech., 165-lb. dms., 5,000 lbs. or more ... lb.	1.80	–
USP, powd., 165-lb. dms., 5,000 lb. lots or more ... lb.	2.36	–
syn., refd., 1-oz. tablets, ctns. 1,000-lb. lots or more ... lb.	3.50	–
Camphor oil, yellow, 25-lb. dms ... lb.	1.65	–
white, dms. ... lb.	2.00	–
spec. grav., 1.070, dms. ... lb.	2.65	2.85
Cananga oil, Indonesian, dms. ... kilo	17.50	–
Candelilla wax, crude, bgs. ... lb.	1.90	–
refd. pure, bgs. ... lb.	2.10	–
Capric acid, coml. pure, dms. ... lb.	.60	.65
tanks ... lb.	.60	.65
Capric aldehyde (aldehyde C-10) dms., cns. ... lb.	3.95	5.35
Caprolactam monomer, flake, bgs., t.l., f.o.b. shipping point ... lb.	.87	–
molten, tanks, same basis ... lb.	.85	–
Capryl alcohol sec. 92-98% tanks, f.o.b. works ... lb.	.35	–
Caprylic acid, coml. pure tanks ... lb.	.73½	–
Capsicum (see Pepper, red).		
Capsicum oil (see Capsicum oleoresin).		
Capsicum oleoresin, NF, from dom., pepper, dms. ... lb.	11.00	–
NF, from African pepper, dms. 500,000 pungency ... lb.	9.00	–
1,000,000 pungency ... lb.	17.00	18.00
Caraway oil, Poland, dms. ... lb.	22.00	25.00
Caraway seed, Dutch, bgs. ... lb.	.58	.59
Egyptian, bgs. ... lb.	.50	.53
Carbon black, furnace, fast extruding (FEF), bulk, c.l., works ... lb.	.2125	–
bgs., c.l., works ... lb.	.2425	–
general purpose (GPF), bulk, c.l., works ... lb.	.2075	–
bgs., c.l. works ... lb.	.2375	–
high abrasion (HAF), high structure, bulk, c.l. works ... lb.	.2300	–
bgs., c.l., works ... lb.	.2600	–

CHEMICAL PRICES

WEEK ENDING NOV 7, 1986

Carbon Black, low structure, bulk, c.l. works ... lb.	.240	.260
bags, c.l. works ... lb.	.270	.290
intermediate-super-abrasion (ISAF) ... lb.	.25	–
bgs., c.l. works ... lb.	.28	–
super-abrasion (SAF), bulk, c.l., works ... lb.	.31	–
bgs., c.l., works ... lb.	.4050	–
semi-reinforcing (SRF), bulk, c.l., works ... lb.	.210	–
bgs., c.l., works ... lb.	.240	–
Carbon black, thermal, medium, bgs. c.l., works ... lb.	.30	.30½
bulk, c.l. works ... lb.	.32	.34½
Carbon black oil, barge, f.o.b. Gulf refineries ... bbls.	10.50	12.50
f.o.b. W. coast refineries ... bbls.	10.50	12.50
Carbon disulfide, t.c., f.o.b. works ton	420.00	–
Carbon tetrachloride, CP, consumers, dms., c.l., frt. alld. ... lb.	.36	–
tech., dms., c.l., t.l., frt. alld. ... lb.	.31	–
tank transport (min. 4,000 gals.) frt. alld. ... lb.	.24	–
Carboxymethyl cellulose (see CMC).		
Cardamom oil, NF, bots. ... lb.	80.00	–
Cardamoms, decort, Guatemalan. . lb.	3.00	–
green, Guatemalan, bgs. ... lb.	6.25	9.75
Carmine, No. 40, NF, bulk, 100-lb. lots or more, divd. ... lb.	135.00	140.00
Carnauba wax, Parnahyba, No. 1, yellow, bgs., ton lots ... lb.	1.95	2.05
Ceara, No. 1, yellow, bgs., ton lots ... lb.	1.75	1.90
North Country, No. 2, refined, bgs., ton lots ... lb.	1.55	1.65
Carnauba wax, North Country No. 3, centrifuged, bgs., ton lots . lb	1.10	–
North Country, No. 3, refined, bgs., ton lots ... lb.	1.30	1.45
Powdered carnauba wax, 20 to 100 mesh, 20c. per lb. higher.		
b-Carotene, in vegetable oil, semi-solid suspension, 400,000 A units per gram., 33 lbs. or more .. lb.	32.75	–
b-Carotene, liq. in vegetable oil, 500,000 A units per gram., 33 lbs. or more ... lb.	40.75	–
b-Carotene, dry, beads, 10%, 167,000 A units per gram 50-lb. cns lb.	26.85	–
d-Carvone, 25-lb. dms., syn. ... lb.	48.00	–
l-Carvone ... lb.	7.00	7.25
Cascara sagrada bark, bulk ... lb.	1.00	–
Casein, imp., acid-precip., grd., 30-mesh, Australian, edible, same basis. c.i.f. ... lb.	1.45	–
Australian, indust., same basis. c.i.f. ... lb.	1.365	–
Cassella acid, 303 mol. wt., dms., frt. alld., 100% basis ... lb.	3.70	–
Cassia, Korintji "A" bgs. ... lb.	1.05	1.10
"B" bgs. ... lb.	.88	.95
Cassia oil, Chinese, dms ... lb.	18.50	–
Castor oil, raw, No. 1, Braz. tanks. . lb.	.31	.33
USP 5-9 dms. ... lb.	.74	–
refd. deod., 5-9 dms. ... lb.	.78	–
blown, 5-9 dms. ... lb.	.75	–
dehydrated, bodied, tanks ... lb.	.74	–
dehydrated, unbodied, tanks ... lb.	.65	–
Castor oil, acids dehydrated, dms. . lb.	1.10	–
ricinoleic acid. ... lb.	.79½	.83
Castor pomace, bgs., container load, f.o.b., Miami, Fla. ... ton	154.00	–
Castoreum, nat., cns. ... lb.	18.00	35.00
syn., cns. ... lb.	11.00	–
Catechol, CP, 45-kilo dms., 50-239 dms., f.o.b. ... kilo.	7.93	–
tech., bgs., t.l., same basis ... kilo.	3.71	–
Caustic potash (see Potash, caustic).		
Caustic soda (see Soda, caustic).		
Cedarleaf oil, dms. ... lb.	17.50	–
Cedarwood oil, Texas, dms., cns. .. lb.	1.75	2.50
Virginia ... lb.	4.75	–
Cedrol, prime dms. ... lb.	5.25	–
Cedryl acetate, dist., dms. ... lb.	4.25	5.30
Celery seed, Indian, bgs. ... lb.	.48	–
Celery seed oil ... lb.	87.00	–
Cellulose acetate, powd., bgs., t.l., divd. E. ... lb.	1.30	–
Cellulose acetate butyrate, powd., 17% butyryl content, bgs., t.l., divd. E. ... lb.	1.75	–
38% butyryl content, bgs., divd. E. . lb.	1.59	–
50% butyryl content, bgs., divd. E. . lb.	1.81	–
55% butyryl content, bgs., divd. E. . lb.	1.63	–
Cellulose gum, pure, high vis., bgs., 24,000-lb. lots or more works, f.o.b. Hopewell, Va. ... lb.	1.60	1.70
std., low or medium vis., bgs., c.l., t.l., f.o.b. Hopewell, Va. ... lb.	1.60	1.90
Cerium concentrate CeO_2, 50 lbs. .. lb.	1.35	–
Cerium hydroxide 90% CeO_2, dms., works ... lb.	5.40	–
77% CeO_2, dms., works ... lb.	4.20	1.60
Cerium oxide, optical grade, bgs., 50-lb. lots or more, divd. ... lb.	1.85	1.90
Cetyl alcohol, NF, cns., c.l., t.l., divd. E. lb.	.88½	1.27
Chalk (see Calcium carbonate).		
Chamomile flowers, Hungarian, cs. . lb.	4.25	4.50
Roman, cs. ... lb.	4.94	–
Egyptian, whole ... lb.	2.70	3.00
Chamomile oil, blue, Egyptian ... lb.	545.00	–
blue, Hungarian. ... lb.	370.90	–
Chenopodium oil, NF, cns. ... lb.	15.00	–
Chicago acid, dry, bbls., frt. alld. .. lb.	13.50	–
Chilies (see Pepper, red).		
Chlorendic anhydride, tech., dms., t.l., works ... lb.	1.30	–
Chlorinated paraffin, 40% chlorine, bulk, divd., Zone 1 ... lb.	.45	.46½
50% chlorine, same basis ... lb.	.48	.47½
60% chlorine, same basis ... lb.	.48½	.48½
70% chlorine, resinous, 50-lb. bgs., c.l., divd., Zone 1 ... lb.	.69	–

ABBREVIATIONS

THE TERMINOLOGY OF THE CHEMICAL MARKETPLACE

a/alpha
alld./allowed
amorph./amorphous
AMP/American melting point
anhyd./anhydrous
AOAC/Association of Official Agricultural Chemists
a.p.a./available phosphoric acid
approx./approximately
artif./artificial
ASTM/American Society for Testing & Materials

b/beta
Be/Baume
bbls./barrels
b.g./beta-gamma
bgs./bags
bls./bales
bots./bottles
b.p./boiling point
b.p.l./bone phosphate of lime
b.r./boiling range
bxs./boxes

C./Centigrade
cbys./carboys
c.c./cubic centimeters
CD/completely denatured
c.i.f./cost insurance freight
c.l./carload
cns./cans
coml./commercial
conc./concentrated
cp/chemically pure
cps./centipoises
cryst./crystalline
cs./cases
ctns./cartons
cyls./cylinders

d-/dextro
dbl./double
denat./denatured
dest.-dist./destructively distilled
dl/dextro-laevo
dist./distilled
distr./distributor
divd./delivered
dms./drums
dom./domestic

E/East
e.p./end point
equald./equalized
exp./expressed
extr./extracted

F./Fahrenheit
f.a.s./free alongside
ferment./fermentation
f.f.a./free fatty acid
f.f.c./free from chlorine
f.f.p.a./free from prussic acid
fib./fiber
f.o.b./free on board
f.p./freezing point
frt./freight

g-/gamma
gal./gallon
g.p./general purpose
gran./granular
grd./ground

i.b.p/initial boiling point
imp./imported

incl./included
indust./industrial

kgs./kegs

l-/laevo
lb./pound
l.c.l../less carload
l.t.l./less truckload
liq./liquid

m-/meta
m.a.p./mixed aniline point
mcg./microgram
mfrs./manufacturers
min./minimum
molt./molten
m.p./melting point

N/nitrogen
n-/normal
nat./natural
neut./neutral
NF/National Formulary
No./number
Nom./nominal

o-/ortho
ord./ordinary
oz./ounce

P/phosphorus
p-/para
Pac./Pacific
pf./proof
phos./phosphate
photo/photographic
pkgs./packages
powd./powdered
precip./precipitated
prod./producer
pt./point
pulv./pulverized
purif./purified

redist./redistilled
refd./refined
refy./refinery
resub./resublimed
ret./returnable

SD/specially denatured
s.d./single distilled
SE/Southeast
sec./secondary

secs./seconds
sp.g./specific gravity
shipt/shipment
soln./solution
std./standard
syn./synthetic

tanks/railroad tankcars
tech./technical
tert./tertiary
t.l./truckload
ton/refers to short ton of 2,000 pounds
TVA/temporary voluntary allowance
t.w./tankwagons

USP/United States Pharmacopeia

vis./viscosity
VM&P/varnish makers & painters

W/West
whse./warehouse
w.w./water-white

NOTE: A unit-ton is 1 percent of 2,000 pounds of the basic constituent or other standard of the material. The percentage figure of the basic constituent multiplied by the unit-ton price shown in Chemical Marketing Reporter gives the price of 2,000 pounds of the material.

CHEMICAL PRICES

WEEK ENDING NOV 7, 1986

Chlorinated paraffin, Zone 2 prices are 1c. per lb. higher and Zone 3 prices are 2c per lb. higher and t.l. drum prices are 5c per lb. higher		
Chlorinated rubber, 5, 10, 20 cps., bgs., t.l., dlvd. lb.	1.68	-
40 cps, bgs., t.l., dlvd. lb.	1.92	-
125 cps., bgs., t.l., dlvd. lb.	2.60	-
300 cps., bgs., t.l., dlvd. lb.	2.75	-
Chlorine, tanks single units works, f.o.b., frt. equald. ton	195.00	200.00
Chloroacetic acid, mono, high purity, flake, 99% bulk f.o.b. works lb.	.56	-
2-Chloro-4-aminotoluene, tech., liq., dms., c.l., t.l., f.o.b. works lb.	1.88	-
o-Chloroaniline, liquid, dms., c.l., f.o.b. works lb.	1.63	-
tanks, same basis lb.	1.55	-
p-Chloroaniline, solid, c.l., t.l., f.o.b. lb.	1.70	-
flake, dms., c.l., same basis lb.	2.00	-
o-Chlorobenzaldehyde, dms., t.l., works lb.	2.45	-
p-Chlorobenzaldehyde, dms., 2,000 lbs. or more, works lb.	3.84	3.85
o-Chlorobenzoic acid, dms. t.l. wks. lb.	3.90	-
p-Chlorobenzoic acid, dms., 500-lb. lots or more, works lb.	1.69	2.25
Chloroform, tech. tanks, distr. dlvd. lb.	.34½	-
tech., consumers, tanks, dlvd. lb.	.34½	-
NF tanks, min., consumer, 4,000 gals. dlvd. lb.	.35½	-
2-Chloro-4-nitroaniline, paste, commodity basis, dms., t.l., f.o.b. lb.	3.06	-
powd., same basis lb.	3.15	-
4-Chloro-2-nitroaniline, paste, 172.5 mol. wt., commodity basis, dms., t.l., f.o.b. lb.	2.25	-
powd., same basis lb.	2.70	-
o-Chlorophenol, dms., c.l., frt. equald. lb.	2.00	2.40
p-Chlorophenol, dms., c.l., frt. equald. lb.	1.25	1.70
Chloropicrin, coml., 1,500-lb. cyls., t.l., f.o.b. works lb.	1.26	-
Chlorosulfonic acid, tanks, frt. equald. lb.	.18½	-
p-Chlorotoluene, tech., tanks, works lb.	1.00	-
Cholecalciferol, dry, 40,000,000 units per gram, kilo lots gm.	24.00	-
Choline bitartrate, cryst., 98% min., 50 kilo dms., f.o.b. Springfield, Mo. kilo	6.90	-
Choline chloride, feed grade, 70% aqueous, t.c., t.l., dlvd. E of Rockies lb.	.28	-
60% dry supplement lb.	.38	-
Choline chloride, 60% dry supplement, bulk hopper cars lb.	.39	-
bgs., 50,000 lbs. min. lb.	.40	-
Choline chloride, pharmaceutical, 50 kilo, lots, f.o.b. Springfield, Mo. kilo	5.00	-
Choline dihydrogen citrate, 98% min., 50 kilo lots, f.o.b. Springfield, Mo. kilo	6.00	-
Chrome green, CP extra light, bgs., dlvd. E. of Rockies lb.	1.68	-
light, bgs., same basis lb.	1.70	-
medium, bgs., same basis lb.	1.72	-
extra deep, CP., same basis lb.	1.74	-
Chrome orange, CP, bgs., dlvd. E. of Rockies lb.	.83	.89
Chrome yellow CP bbls., dlvd. E. of Rockies lb.	1.09	1.18
Chromic acid, 99¾%, flake dms., c.l., frt. equald. lb.	1.18	-
grd., same basis lb.	1.25	-
Chromium acetate, soln., 7½%, dms., 500-2,000-lb. lots, works. lb.	.10	-
Chromium fluoride, dms., t.l., works lb.	.81	-
Chromium nitrate, dms., t.l., f.o.b. lb.	1.45	-
10% metal soln., 500-lb. dms. same basis lb.	.74	.86
Chromium oxide, hydrated, 50-lb. bgs., c.l. lb.	5.50	-
pure, bgs., c.l. lb.	1.90	2.00
Cinnamic aldehyde, cns., dms. lb.	1.85	2.45
Cinnamic alcohol, 25-lb. cns. lb.	4.50	-
Cinnamon, H2 lb.	.95	1.00
Cinnamon bark oil, bots. lb.	105.00	110.00
Cinnamon leaf oil, dms lb.	2.75	-
Citral, nat., dms lb.	5.50	8.65
syn., 55-gal. dms. f.o.b. lb.	3.18	-
Citric acid, USP, hydrous, gran., 250-lb. dms., t.l. lb.	1.19	-
Citric acid, USP, anhyd., gran. 250-lb. dms., t.l., del. lb.	.86	-
Citric acid anhyde, powder 5c. higher		
Citronella oil, Ceylon, dms. lb.	2.15	2.20
Java, dms. lb.	2.60	-
China, dms. lb.	2.60	-
Citronellal, 25-lb cans lb.	3.85	7.40
Citronellol drums, f.o.b. lb.	3.68	-
Citronellyl acetate, dms. lb.	6.50	6.50
Citronellyl formate, 25-lb. cns lb.	8.85	-
Civet, artif., bots. lb.	20.00	-
nat. lb.	400.00	-
Clay ball, dom. air floated, bgs., c.l., Tenn. ton	49.00	-
dom., crushed, moisture-repellent, bulk, c.l., Tenn. ton	24.00	-
Clay China (see Kaolin).		
Cleaners, naphtha, 140° flash tanks., New Jersey or New York, dlvd gal.	1.40	-
Clove leaf oil Indonesian, reg. dms. kilo	3.15	-
Madagascar, reg. kilo	3.40	-
Clove bud oil kilo	28.00	27.00
Cloves, Brazil lb.	2.35	2.40
Zanzibar lb.	4.20	-
Madagascar lb.	2.35	2.40

CMC, technical, 98% minimum, low or medium vis., bgs., 24,000 lbs., f.o.b. Hopewell, Va., 100% basis lb.	1.25	-
detergent makers, f.o.b. manufacturing point lb.	.84	-
CMC, purif., high vis., (see Cellulose gum).		
Coaltar pitch, indust., liq., works ton.	250.00	255.00
roofing, 140-155, Federal specification RP-381 Type 1, bulk works ton	350.00	-
Cobalt acetate, dms., t.l., frt. alld. lb.	3.61	4.25
Cobalt carbonate, powd., dms., frt. alld. lb.	6.61	8.16
Cobalt chloride, dms., 5,000 lbs. or more, ft. equald. lb.	4.15	-
Cobalt hydrate, dms., t.l., frt. alld. lb.	8.20	10.55
Cobalt metal, 99.5-99.9%, 250-kilo. dms., f.o.b. NY, Chicago. lb.	11.70	-
Cobalt naphthenate, liq., 6% Co., dms., dlvd. lb.	2.06	-
Cobalt nitrate, dms., t.l., frt. alld. lb.	2.74	3.45
Cobalt oxide, imp., black, 72-73% Co. lb.	9.51	-
Cobalt oxide, imp., 70-71% Co. lb.	9.78	-
Cobalt phosphate powd. 32.1% Co., dms., dlvd. lb.	1.35	-
Cobalt resinate fused, 3% Co., dms. lb.	.36½	-
Cobalt sulfate, cryst., bgs., 10,000 lbs. or more, ft. alld. E. lb.	2.81	3.54
monohydrate, dms., frt. alld. lb.	4.66	6.02
Cobalt tallate, 6% Co., dms., dlvd. lb.	2.16	-
Cocillana bark, bls. lb.	.40	.45
Cocoa butter, spot lb.	2.14	-
Coconut oil (See Oils, Fats & Waxes market report).		
Coconut oil acids, distilled, t.c., f.o.b. lb.	.52	.58
double distilled, same basis lb.	.54	.63
Cod oil, f.o.b., Gloucester, Mass., bulk gal.	6.50	-
Codeine alkaloid, NF, 25-kilo lots, kilo.	900.00	-
Codeine phosphate, USP, cns., 25-kilo lots. kilo	640.00	-
Codeine sulfate, NF cns. 25-kilo lots. kilo	776.00	-
Codliver oil, NF, dms. gal.	6.50	7.25
Copaiba balsam, dms. lb.	1.50	-
Copaiba oil, cns., dms. lb.	3.75	-
Copper acetate, monohydrate, cryst., tech., dms., t.l., works lb.	.71	.74
Copper bromide, (cupric) 200-lb. dms., 100,000-lbs. -per-year contracts, works lb.	1.34	-
Copper carbonate, 56% Cu, dark. dense, 50-lb. bgs., c.l., t.l., works 100 lbs.	108.30	-
light, fluffy, 50 lb. bags, c.l., t.l., works 100 lbs.	109.30	-
Copper chloride (cupric), anhyd., c.l., works lb.	.90	-
Copper cyanide, tech. dms., 24,000-lb. lots or more lb.	2.30	2.62
Copper fluoborate, (cupric), liq. conc., dms., t.l., works, frt. equald. lb.	.82	-
Copper gluconate, FCC grade, 25-lb. dm., frt. equald. lb.	6.50	-
Copper metal electrolytic wire bars, dlvd., domestic, basis lb.	.62½	-
Copper naphthenate, liq., 8% Cu., dms., frt. alld. lb.	1.19	-
Copper nitrate (cupric), purif., flake, dms., t.l., works. lb.	.43¼	-
Copper oleate, solid, 6% Cu. dms., works frt alld lb.	.97	-
Copper oxide, black (cupric), dms., 80,000-lb. lots, works lb.	1.21	-
red (cuprous), dms., 97%, USN Type 1, (AA), 80,000-lb. lots, works lb.	1.19	1.20
red, 90%, Type 2, same basis lb.	1.15	-
Copper-8-quinolinolate, 10%, liq. emulsion, t.l., dlvd. lb.	2.52	-
Copper sulfate, cryst., pentahydrate, 99% bgs., c.l., f.o.b. works 100 lbs.	46.45	-
CP, pentahydrate, cryst., dms., t.l., works 100 lbs.	60.00	-
monohydrated, 35% Cu, dms., c.l., works 100 lbs.	75.10	-
basic, bgs., c.l., works 100 lbs.	88.30	-
Coriander oil, USP, dms. lb.	32.00	34.00
Coriander seed Moroccan lb.	.38	-
Rumanian lb.	.38	.37
Corn oil (See Oils, Fats & Waxes market report).		
Corn oil, crude, foots (soapstock), 95% acid; New York lb.	.13½	.14
Corn oil acid, dms lb.	.50	-
tanks lb.	.32	.40
Corn syrup 43 Be., tanks, f.o.b. works 100 lbs.	11.22	11.43
Cortisone acetate, USP, dms., 5 kilos or more gram.	.80	-
Cottonseed meal (See Oils, Fats & Waxes market report.)		
Cottonseed oil (See Oils, Fats & Waxes market report.)		
Cottonseed oil, acidulated (soap stock). acid, 95%, tanks, N.Y. lb.	.13	-
Cottonseed oil acids, dist., dms. lb.	.53	-
tanks lb.	.55	-
Coumarin, NF X, cryst., over 800-lb. lots lb.	6.00	6.20
Cream of tartar (see Potassium bitartrate).		
Creosote, coaltar, grade 1, tanks, f.o.b. works gal.	1.15	1.18
soln., 60/20, tanks, same basis. gal.	1.134	1.17
p-Cresidine, fused, dms., works lb.	4.31	-
m-Cresol, 95-98%, dms., t.l., f.o.b. lb.	1.71	-
tanks, same basis lb.	1.65	-
m,p-Cresol, 99%, dms., t.l., f.o.b. lb.	.94	-
bulk, same basis lb.	.82	-
o-Cresol, 99% pure, dms., t.l. f.o.b. lb.	.87	-
bulk, same basis lb.	.75	-
98% pure, dms., t.l., f.o.b. lb.	.87	-
bulk, same basis lb.	.75	-
p-Cresol, 98%, dms., t.l., f.o.b. lb.	1.22	-
bulk, same basis lb.	.95	1.15
Cresylic acid, coaltar, dom., metapara content above 25%, resin and tricresyl phosphate grades, tanks, frt. alld. lb.	.58	-
Cresylic acid, dom., metapara content 25% or less, tanks, frt. alld. lb.	.58	-
Crotonic acid, 200-lb. dms., t.l., f.o.b. dlvd. lb.	1.50	-
Cryolite syn., bulk, c.l., works ton	510.00	550.00

Cube root, powd., 5% rotenone, basis, 50-lb. bgs., t.l., works lb.	.60	-
Cumene, bulk, contract, f.o.b. lb.	.14	.14
Cumin seed, Indian, bgs. lb.	.95	-
Cyanuric acid, dms., c.l., t.l. frt. equald. lb.	1.16	1.37
Cyclamen aldehyde, 50% min. aldehyde content, dms. lb.	4.85	-
96.5%, dms. lb.	7.35	9.20
90-92% dms. lb.	7.85	-
Cyclohexane, bulk, barges, wks gal.	.9825	.9925
Cyclohexanol tech., tanks, f.o.b. lb.	.52	.66½
Cyclohexanone tech., tanks, f.o.b. works lb.	.55½	.58½
tanks, dlvd. lb.	.565	-
Cyclohexylamine, tech., tanks, works lb.	.85	-

D

2,4-D acid, tech., 50-lb. bgs., c.l., t.l., works, frt. equald. lb.	1.10	1.25
2,4-D butyl ester, tech., 55-gal. dms., c.l., t.l., works, frt. equald. lb.	1.30	-
tanks, same basis lb.	1.25	-
2,4-D dimethylamine salt, t.c., t.t. works, frt. alld. gal.	8.05	-
Decyl alcohol, mixed isomers, tanks, dlvd. lb.	.32	-
perfume grade, dms. lb.	.75	-
Defluorinated phosphate (tricalcium), feed grade, 18% P, c.l., bulk, f.o.b. works ton	195.00	228.00
Denatured alcohol, ethyl, CD18, CD19, tanks, dlvd. E. gal.	1.87	-
NOTE: Tankcar sales require written authorization by Alcohol and Tobacco Tax Division.		
Denatured alcohol, ethyl,		
SD2B, tanks, dlvd. E. gal.	1.81	-
SD3A, tanks, dlvd. E. gal.	1.76½	-
SD23A, tanks, dlvd. E. gal.	1.86	-
SD23H, tanks, dlvd. E. gal.	1.89	-
SD29, tanks, dlvd. E. gal.	1.83	-
SD30, tanks, dlvd. E. gal.	1.72½	-
SD35A, tanks, dlvd. E. gal.	1.88½	-
Denatured alcohol, ethyl, brucine formula SD40, tanks, dlvd. E. gal.	1.83	-
ethyl, optional formula, SD40, tanks, dlvd. E. gal.	1.82½	-
For anhyd. alcohol on above formulas, prices are 12c. per gal. higher.		
West Coast dlvd. prices are the same as Eastern prices, except in Idaho, Oregon and Washington where a 5c. differential on tankcars is maintained.		
Desoxyephedrine hydrochloride (See Methamphetamine hydrochloride)		
Detergent alkylate, straight chain dodecylbenzene, tanks, barges, f.o.b. lb.	.45	-
Dextrin, corn, canary dark, paper bgs., c.l., works 100 lbs.	28.04	-
white, paper bgs., c.l., works 100 lbs.	27.43	-
Dextrose, anhyd., coml., bgs., c.l., dlvd. New York 100 lbs.	41.10	-
USP special, 100-lb. bgs., c.l., dlvd. New York 100 lbs.	46.50	-
Dextrose, hydrated coml, bgs., c.l., dlvd. New York 100 lbs.	24.25	-
Western zone 100 lbs.	25.60	-
Diacetone alcohol, acetone free, tanks, dlvd. lb.	.52	-
Diacetyl, flavor grade, dms lb.	9.25	15.00
Diammonium phosphate, fert. grade. min. 18% N, 46% P. bulk, c.l., f.o.b. Fla. works ton	140.00	145.00
Diammonium phosphate, feed grade, 18% N, 20% P, bulk, c.l., f.o.b. Fla. works ton	240.00	-
bgs., same basis ton	250.00	-
Diammonium phosphate, tech., bgs., c.l., t.l., works, frt. equald. 100 lbs.	52.50	-
food grade, bgs., c.l., t.l., same basis 100 lbs.	57.75	-
2,4-Di-tert-amylphenol, min. 95.5%, dms., c.l., t.l., works lb.	1.04	-
tanks, works lb.	.97	-
Diarylide yellow, OT, (yellow 14), dms., frt. alld. lb.	6.20	-
o-Dianisidine dihydrochloride, 100%, MW 244, dms., t.l., dlvd. lb.	4.25	-
2,6-Di-tert-Butyl-p-Cresol (see Butylated hydroxytoluene)		
Dibutyl fumarate, tanks, f.o.b. works lb.	.77	.85
Dibutyl maleate tanks, f.o.b. works lb.	.63	.64
Dibutyl phthalate, tanks, works lb.	.54	.60
Dibutyl sebacate tanks, works lb.	1.72	1.89
Dibutylamine, dms., c.l., dlvd. lb.	1.12	-
tanks, same basis lb.	1.06	-
2-5-Dichloroaniline, flake, dms., works lb.	2.00	-
fused, dms., works lb.	1.80	-
3,4-Dichloroaniline, tech. 98%, solid, dms., c.l., t.l., f.o.b. works lb.	1.46	1.87
o-Dichlorobenzene, tech., 80%, dms., c.l., t.l., dlvd. lb.	.52	-
tanks, same basis lb.	.45	-
98% refd., dms., c.l., same basis. lb.	.54	-
tanks, same basis lb.	.47	-
p-Dichlorobenzene, graded, 300-lb. dms., t.l., f.o.b., frt. equald. lb.	.51	.52
tanks, liq., same basis lb.	.43	.47
2,6-Dichloro-4-nitroaniline, dms., 10,000 lbs. or more, works. lb.	3.30	-
Dichlorophenoxyacetic acid (see 2,4-D).		
Dicyclohexylamine, dms., c.l., t.l., f.o.b. lb.	1.35	-
tanks, same basis lb.	1.25	-
Dicyclohexyl phthalate, bgs., c.l., t.l., dlvd. lb.	1.25	-
Dicyclopentadiene, high-purity, 97-98%, tanks, works lb.	.35	-
Diethanolamine, tanks, frt. alld. lb.	.44	.47
Diethanolamine lauryl sulfate, tanks, frt. alld. lb.	.41	-
DDVP (see Dimethyl dichlorovinyl phosphate).		

Diethyl barbituric acid (see Barbital).		
Diethyl carbonate, tankwagons, f.o.b. works lb.	1.40	-
Diethyl ethanolamine, CP dms., c.l., dlvd. lb.	1.18	-
tanks, dlvd. lb.	1.10	-
Diethyl ethanolamine tech., 8c. per lb. lower.		
Diethyl oxalate, dms., c.l., f.o.b. works lb.	1.90	-
Diethyl phthalate, tanks, f.o.b. lb.	.69	[illegible]
odorless cosmetic grades, t.l., works lb.	.97½	-
Diethyl sulfate, tanks., frt. alld. E. lb.	.59	-
Diethyl thiourea, dms., c.l., t.l., works lb.	2.48	-
Di-2-ethylhexyl adipate (see Dioctyl adipate).		
Diethyl toluamide. 95-97% min. meta isomer. dms., t.l., f.o.b. works lb.	2.75	-
N,N-Diethyl-m-toluidine, tech., liq., dms., c.l., f.o.b. lb.	3.16	-
tanks, same basis lb.	3.10	-
Diethylamine, dms., c.l., dlvd. lb.	1.15	-
tanks, same basis lb.	1.02	-
N,N-Diethylaniline, dms., c.l., t.l., f.o.b. works lb.	1.83	-
tanks same basis lb.	1.75	-
Diethylbenzene, tanks, f.o.b. works lb.	.98	-
Di-2-ethylhexyl azelate (see Dioctyl azelate).		
Di-2-ethylhexyl phthalate (see Dioctyl phthalate).		
Diethylene glycol, tanks, dlvd. E. lb.	.29½	[illegible]
Diethylene glycol monobutyl ether, dms., c.l., frt. alld. E. lb.	.65	-
tanks, frt. alld. E. lb.	.57	-
Diethylene glycol monoethyl ether, dms., c.l., frt. alld. E. lb.	.64	-
tanks, frt. alld. E. lb.	.56	-
Diethylene glycol monomethyl ether, dms., c.l., frt. alld. lb.	.62	-
tanks, frt. alld. lb.	.54	-
Diethylene glycol monobutyl ether acetate, dms., c.l., dlvd. E. lb.	.80	-
tanks, dlvd. E. lb.	.72	-
Diethylene glycol monoethyl ether acetate, dms., c.l., frt. alld. E. lb.	.80	-
tanks, frt. alld lb.	.72	-
Diethylenetriamine, tanks, f.o.b. works lb.	1.60	[illegible]
Diethylenetriamine pentaacetic acid, pentasodium salt solution, tank-cars/tanktrucks, frt-equalized lb.	.45	-
Digitoxin, USP, imp., bots. gram	2.60	[illegible]
Diglycol laurate, dms., ton lots lb.	.32½	-
Diglycol stearate, dms., t.l. lb.	.62	[illegible]
Dihydrazine sulfate, dms., works lb.	1.10	[illegible]
Dihydrostreptomycin sulfate, bulk kilo.	48.00	-
Dihydroxyacetone, 50-kilo lots, works kilo	40.00	-
Di-isobutyl ketone, tanks, dlvd. lb.	.50	-
Di-isobutyl phthalate tanks, dlvd. E. lb.	.55	[illegible]
Di-isobutylene, tanks, f.o.b. Houston lb.	.37	-
Di-isodecyl phthalate, tanks, dlvd. lb.	.40	[illegible]
Di-isononyl phthalate, tanks, dlvd. lb.	.40	-
Di-iso-octyl azelate, tanks, dlvd. E. lb.	.99	[illegible]
Di-iso-octyl phthalate, tanks, dlvd. lb.	.40	-
Di-isopropanolamine, dms., c.l., frt. alld. lb.	.66½	-
tanks, same basis lb.	.58½	-
Di-isopropylamine, dms., c.l. dlvd. lb.	1.17	-
tanks, same basis lb.	1.07	-
Dilauryl 3,3-thiodipropionate, dms., t.l., frt. alld. lb.	1.89	-
Dill oil, USP, dms. lb.	7.00	[illegible]
Dimethyl anthranilate, dms. lb.	15.60	-
Dimethyl benzyl carbinyl acetate, 25-lb. dms. lb.	6.95	-
Dimethyl carbonate, dms, t.l., f.o.b. works lb.	.90	-
Dimethyl dichlorovinyl phosphate, 55-gal. dms., f.o.b. lb.	1.80	[illegible]
Dimethyl ethanolamine, anhyd., dms., c.l., dlvd. E. lb.	1.16	[illegible]
tanks, dlvd. E. lb.	1.07	[illegible]
Dimethyl ether, aerosol grade, tanks, dlvd lb.	.38	-
Dimethyl phthalate, tanks, f.o.b works. lb.	.65	-
Dimethyl sebacate, tanks, f.o.b works. lb.	2.48	[illegible]
Dimethyl sulfate, ref. dms., c.l., f.o.b. works lb.	.57	-
tanks lb.	.46	-
Dimethyl sulfide, tanks, works lb.	.59	-
Dimethyl sulfoxide, tanks, works lb.	.78	-
Dimethylacetamide, bulk f.o.b. lb.	.87½	-
Dimethylamine, 25% soln., tanks, frt. equald., 100% basis lb.	.63½	-
40% soln., tanks, frt. equald., 100% basis lb.	.63½	-
anhyd., tanks, frt. equald. lb.	.64½	-
N,N-Dimethylaniline, t.l., f.o.b. lb.	1.03	-
t.l. dms. lb.	1.11	-
N,N-Dimethylformamide, dms., c.l., t.l., f.o.b., works lb.	.57	-
tanks, same basis lb.	.49	-
2,4-Dinitroaniline. tons-lots, f.o.b. lb.	1.22	-
Dinitroaniline, orange toner, CP, bgs., dlvd. E. of Rockies. lb.	5.20	-
2,4-Dinitrochlorobenzene, crystallizing at 47°, t.l., f.o.b. Charlotte, N.C. lb.	.98	-
2,4-Dinitrophenol, 250-lb. dms., f.o.b. Charlotte, N.C. lb.	1.95	-
Dinitrotoluene, mix., tech. f.o.b. works lb.	.30	[illegible]
2,4-Dinitrotoluene, dms., c.l., t.l., works lb.	1.25	-
tanks, works lb.	1.20	-
Dioctyl adipate, tanks, frt. alld. E. lb.	.61	[illegible]
Dioctyl azelate, tanks, dlvd. E. lb.	.99	[illegible]
Dioctyl phthalate, tanks, dlvd. lb.	.40	[illegible]
Dioctyl sebacate, 99%, tanks, f.o.b. works lb.	1.47	-
1,4-Dioxane, tanks, frt. alld. E. lb.	1.13	-
t.l., same basis lb.	1.21	-
Dipentaerythritol, bgs., c.l., t.l., dlvd. E. lb.	1.42	-
Dipentene steam-dist., tanks, f.o.b. Fla. works lb.	.25	-
sulfate turpentine derived, tanks lb.	.25	-
Dip oil (see Tar acid oil).		
Diphenhydramine hydrochloride, USP, dom., 1,000-kilo lots, dms., dlvd. kilo	20.00	[illegible]
Diphenyl, 99.9%, bgs., t.l., f.o.b. works lb.	.74	-
tanks, works lb.	.65	-

Diphenyl oxide, tech. grade, tanks lb.	1.11	1.20
Diphenylamine, refd., flake, bgs., t.l., works, frt. equald. lb.	1.25	-
molten, tanks, works. lb.	1.00	-
octylated, flake, bgs., t.l. f.o.b. works lb.	7.68	-
Diphenylguanidine, bgs., t.l., frt. alld. lb.	2.52	-
Diphenylhydantoin-sodium USP, dms. lb.	5.00	5.60
Diphenylmethane 4,4-di-isocyanate, polymeric, bulk, c.l., min. frt. alld. lb.	.91	-
Dipropylene glycol, tanks, frt. alld. lb.	.45	-
Dipropylene glycol monomethyl ether, dms., c.l., dlvd lb.	.54	-
tanks, same basis lb.	.46	-
Di-o-tolylguanidine, powd., dms., t.l., frt. alld. lb.	2.92	-
Di-o-tolylthiourea, tech., solid, dms., t.l., frt. alld. lb.	3.11	-
Ditridecyl phthalate, tanks, dlvd. lb.	.64	.65
Diundecyl phthalate, tanks, dlvd. lb.	.61	.65
Dodecylbenzene, 100% basis, tanks works lb.	2.75	2.60
dms. 100% basis lb.	3.00	2.70
1-Dodecanol, syn., tanks, f.o.b. lb.	.76½	-
Dodecenyl succinic anhydride, dms., c.l., t.l., dlvd. lb.	.88	-
Dodecylbenzene (see Detergent Alkylate).		
Dodecylphenol, tanks, min. frt. alld. E lb.	.48	.53
Dyes, coaltar, certified colors for food, drugs and cosmetics, 100 lb. and over. frt. prepaid or alld.		
Blue, FD&C, No. 1 lb.	21.20	22.60
No. 2 lb.	29.15	29.22
Green, FD&C, No. 3 lb.	49.50	65.00
Red, FD&C, No. 3 lb.	24.00	24.50
Yellow, FD&C, No. 5 lb.	7.45	7.85
No 6 lb.	6.45	6.75
Dyes, coaltar, certified colors for drugs and cosmetics. 100-lb. lots dlvd.		
Green, D&C, No. 5 lb.	38.50	-
No. 6 lb.	42.80	-
Red, D&C, No. 4 lb.	18.85	-
No 17 lb.	38.90	-
No. 19 lb.	38.25	-
No. 22 lb.	12.46	-
No. 28 lb.	59.95	-
No 33 lb.	48.95	-
Yellow, D&C, No. 7 lb.	21.00	-
No 8 lb.	20.55	-
No 10 lb.	48.80	48.85
No 11 lb.	35.25	-
Dyes, coaltar, for general use in cloth and paper dyeing (by Color Index Name). f.o.b. works		
A Bk 1 Blue black ex. conc. lb.	5.75	-
C.I. A Bl 9 Blue 2G lb.	5.46	-
A Bl 45 Alizarine Blu SAP 150% lb.	19.85	-
A Bl 90 Alizarine Br. Cy G lb.	14.13	-
A Bl 113 Navy 5R lb.	6.55	-
A Gr 16 Gast 2G 333% lb.	22.12	-
A Or 7 II lb.	3.72	-
A Or 8 RO Ex. Conc. lb.	4.00	-
A Or 10 Wool Or G lb.	4.30	-
A Or 74 Metallized Or GNA lb.	6.15	-
A R 26 lb.	5.13	-
A R 14 Azo Rubine 133% lb.	8.85	-
A R 18 Scarlet 4R Conc. lb.	5.45	-
A R 88 Fast Red A. Conc. lb.	6.85	-
A R 151 Sc. Red 3B Conc. lb.	4.50	-
A V 17 SBNS Conc. lb.	9.75	-
A V 49 4BNS Conc. lb.	12.22	-
A Y 17 Fast Light Yell 2G. lb.	5.69	-
A Y 23 Tartrazine Ex Conc. lb.	6.18	-
B Bl 9 Zinc Free lb.	16.40	-
B Br 4 Bismark Brown R Ex. Conc. lb.	4.42	-
B G 1 Jade Crystals lb.	9.55	-
B Gr 4 Malachite Green Crystal. lb.	6.90	-
B V 1 Methyl Violet Crystals lb.	6.80	-
B V 10 Rhodamine B Ex. lb.	10.95	-
B Y 2 Bond Yell SFA 150% lb.	10.10	-
D Bl 1 Sky Blue 6B Conc. lb.	4.62	-
Ex Conc 300% lb.	9.25	-
D Bl 8 Azurine G Conc. lb.	9.45	-
D Bk 22 Fast Black GR lb.	2.65	-
Fast Black GR 150% lb.	4.28	-
D Br 230 Resin Fast Brown BRNB 200% lb.	7.23	-
D Gr 26 Resin Fast Green GL lb.	9.15	-
D R 24 B Ex. Conc. lb.	7.98	-
D R 31 Brilliant Red 12B Conc. lb.	6.16	-
D R 80 Fast Red 8BLN lb.	6.15	-
D R 81 Paper Red 8BLP lb.	6.85	-
D R 251 Fast Scarlet AV lb.	6.25	-
D Or 102 Fast Orange WSP Liq. lb.	2.47	-
HS. Conc. 150% lb.	11.25	-
D Y 4 Brilliant Paper Yell 3GX 125% lb.	4.69	-
Brilliant Paper Yell 3GX Liq. lb.	1.75	-
D Y 11 Sinbena Yellow GA. Ex. Conc. lb.	3.03	-
D Y 41 Fast Yellow RGL Conc. 200% lb.	9.75	-
D Y 27 Resin Fast Yellow L5G lb.	14.40	-
Ds R 1 Scarlet BA lb.	4.26	-
Ds R 91 Pink REL 200% lb.	21.00	-
Ds Y 3 Yellow G lb.	3.65	-
Ds Y 54 Yellow 3G lb.	6.84	-
Ds Or 3 Orange GRA lb.	4.91	-
Ds Or 37 Orange GB lb.	3.77	-
Ds V 1 4RN Paste lb.	7.85	-
Ds V 26 Bordeaux BV 200% lb.	17.25	-
Ds Bl 27 Blue BGLF lb.	10.05	-
Ds Bl 102 Blue GFDA 300% lb.	22.80	-
50% Paste lb.	4.10	-
V G 1 Jade Green Double Paste lb.	5.50	-
V Bk 25 Olive TA Paste lb.	5.85	-

E

Edta, tech., 95-99%, dms., t.l. lb.	7.00	-
Ephedrine, syn. anhyd., USP, 80-oz. lots. oz.	1.26	-
Ephedrine hydrochloride, NF, cryst., less than 1,000 kg. kilo	38.25	40.25
Ephedrine sulfate, USP, cryst., dms., less than 1,000 kilos kilo	43.00	45.25
Epichlorohydrin, tanks, dlvd. lb.	.86	-
Epinephrine base, syn., USP, bots., 100-gram lots gram	.60	-
Epoxy resin, liquid, bulk tanks, dlvd. lb.	1.31	1.41
Solid, bgs., t.l. lb.	1.28½	1.33½
Epsom salt (see Magnesium sulfate).		
Erythorbic acid, powd., gran., 100 lb. dms., t.l. or mixed t.l. f.o.b. works lb.	4.10	4.25
Ester gum, gum-rosin type, dms., c.l., dlvd., Ill., Md., Ky., E. States, Minneapolis, N.C., Ohio, St. Louis, St. Paul, Va., W. Va. lb.	.76	-
Ester gum, wood-rosin type, dms., c.l., same basis lb.	.43	.46
Ethyl acetate, syn., 85-88%, tanks, dlvd. lb.	.41	.41½
99%, tanks, dlvd lb.	.41½	.42½
Ethyl acetoacetate dms., c.l., dlvd. lb.	1.13	-
tanks, dlvd. lb.	1.05	-
Ethyl acrylate, tanks, frt alld lb.	.66	-
Ethyl alcohol, syn., 190 pf., USP tax free, tanks, dlvd. E. gal.	1.55	-
Ethyl alcohol, absolute, 200 pf., tax free prices 12c. higher than 190 pf., tax free.		
Ethyl alcohol, fermentation, tanks, f.o.b. works gal.	1.08	1.28
Price range attributable to various state tax incentives.		
Ethyl alcohol, denat. (see Denatured alcohol, ethyl).		
Ethyl p-aminobenzoate, NF (see Benzocaine).		
Ethyl benzoate, dms. lb.	1.35	1.50
Ethyl bromide, tech., 98%, dms., c.l., frt. alld. E. lb.	.76	-
Ethyl butyrate, dms. lb.	1.35	1.50
Ethyl cellulose, standard vis., 7 cps. bgs., t.l., frt. equald. E. lb.	4.55	-
standard vis., 10, 20, 45, 100 cps., t.l., frt. equald. E. lb.	4.17	4.22
medium vis., 50, 70, 100 cps., t.l. frt. equald. E. lb.	4.25	-
USP vis., 7 cps bgs., t.l. frt. equald. E lb.	4.88	-
USP 10,20,45,100 bgs., t.l., frt. equald. E lb.	4.59	4.69
VSP (medium) 50,70,100 bgs., t.l., Frt. equald. E. lb.	4.51	-
Ethyl chloride, tech., cyls. frt. alld. lb.	.28	.28½
tanks. frt. alld. lb.	.24	.26½
Ethyl cinnamate, dms. kilo	41.00	-
Ethyl ethanolamines, mixed. dms., t.l., dlvd. E. lb.	1.23	-
tanks, dlvd. E. lb.	1.15	-
Ethyl ether, refined, tanks, f.o.b. lb.	.46	-
Ethyl hexanoate, dms. lb.	4.25	4.75
2-Ethylhexoic acid, dms., c.l., t.l., dlvd. E. lb.	.63	-
tanks dlvd. E. lb.	.57	-
2-Ethylhexyl acrylate, straight or mixed, tanks, frt. alld. E. lb.	.79.5	-
2-Ethylhexyl alcohol, tanks, dlvd. E. lb.	.35	-
Ethyl iodide, cbys. works lb.	6.25	-
Ethyl linalool, syn 55-gal. dms. lb.	10.60	-
Ethyl linalyl acetate, syn., 55-gal. dms. lb.	10.85	-
Ethyl methacrylate, tanks, frt. equald lb.	1.06	-
n-Ethyl morpholine, dms., t.l., frt. alld. lb.	2.00-	-
tanks, same basis lb.	1.92	-
n-Ethyl-a-naphthylamine, dms., works lb.	1.04	-
Ethyl oxalate (see Diethyl oxalate).		
Ethyl parathion (see Parathion, ethyl).		
Ethyl silicate dist. (see Tetraethyl orthosilicate).		
Ethyl silicate, 40% available SiO_2, dms., t.l., f.o.b. works lb.	1.45	1.46
tanks, f.o.b. works lb.	1.39	-
N-Ethyl-m-toluidine, tech., liq., dms., c.l., f.o.b. lb.	3.18	-
tanks, same basis lb.	3.10	-
N-Ethyl-o-toluidine, dms. lb.	2.85	2.90
Ethyl vanillin 100 lb. dms., 500 lbs. or more lb.	13.50	-
25 lb. dms., 500 lbs. or more lb.	13.75	-
100 lb. dms., less than 500 lbs. lb.	14.00	14.50
Ethylamine (see Mono-Di- and Tri-)		
N-Ethylaniline, dms., c.l., t.l., f.o.b. works lb.	1.68	-
tanks, same basis lb.	1.58	-
Ethylbenzene, bulk, f.o.b. Houston, Tex. lb.	.22	.23
Ethylene, contract, dlvd. lb.	.18	.18½
Ethylene brassylate, dms. lb.	16.00	16.25
Ethylenediamine, 99%, tanks, f.o.b. works lb.	1.30	1.305
Ethylenediamine dihydriodide lb.	7.55	9.25
Ethylenediamine tetraacetic acid, tetrasodium salt, soln., t.c., t.t., frt. equald. lb.	.36½	-
Ethylene dibromide dms., c.l., frt., equald lb.	.38	.46
tanks, frt. equald lb.	.32	.42
Ethylene dichloride, tanks, f.o.b. works lb.	.17	.17¼
Ethylene glycol, indust., tanks, frt. alld. lb.	.31	-
Ethylene glycol, monobutyl ether, tanks, dlvd. E. lb.	.41½	-
Ethylene glycol monoethyl ether, tanks, dlvd. E. lb.	.51	-
Ethylene glycol monomethyl ether, tanks, dlvd. E. lb.	.34	-
Ethylene glycol monobutyl ether acetate, tanks, frt. alld. E. lb.	.64½	-
Ethylene glycol monoethyl ether acetate, tanks, frt. alld. E. lb.	.55½	-
Ethylene glycol monomethyl ether acetate, tanks, frt. alld. E. lb.	.43	-
Ethylene oxide, tanks f.o.b. lb.	.35	.45
Ethylene trichloride (see Trichloroethylene).		
Eucalyptol, NF, dms. Portuguese kilo.	7.50	-
Eucalyptus Citriadora Oil, Chinese kilo	3.05	-
Eugenol, USP, dms. kilo	7.55	-

F

Fennel oil, sweet, USP, cns. lb.	9.00	-
Fennel seed, Egypt lb.	.37	-
Indian lb.	.87	.95
Fenugreek seed, Indian, bgs. lb.	.25	.32
Ferric chloride anhyd., tech., 350-lb. dms., c.l., works 100 lbs.	38.00	-
Ferric chloride, 42 Be. photo grade dms., c.l., works 100 lbs.	9.10	-
Ferric chloride, sewage grade, 100 percent basis, f.o.b. works, tank works ton	176.00	255.00
Ferric nitrate, cryst., dms., t.l., f.o.b. lb.	.84	-
Ferric oxalate, tech., gran., 50-lb. dm., f.o.b. works lb.	1.65	-
Ferric oxides (see Iron Oxides).		
Ferric phosphate, FCC insoluble powder, dms, 10,000 lbs. lb.	1.10	1.15
Ferric pyrophosphate, soluble, purif., pearls, 50-lb. dm. lb.	1.11	-
Ferric resinates, precip., 6.75% Fe. dms., ton lots frt. alld. lb.	.45	-
Ferric sulfate, partly hydrated, 100-lb. bgs., c.l., works. ton	141.00	-
bulk, works. ton	117.00	-
Ferric ammonium citrate, NF, brown, green gran. 100 lb. dms., 2,000 lb. min., f.o.b. shipping pt. lb.	2.00	2.95
2c. per pound surcharge for shipments W. of Denver		
Ferric-ammonium oxalate, fine gran., 250-lb. dms., t.l., f.o.b. works, E. lb.	.42	-
Ferric hydroxyethylene diaminetriacetic acid, industrial grade, sodium salt, soln., 4.5% Fe, t.c., t.t., f.o.b. works lb.	.55	-
agricultural grade, sodium salt solution, 5% Fe, t.c., t.t., f.o.b. works lb.	.64	-
Ferrous fluoborate liq. conc., dms., t.l., works, frt. equald. lb.	.64	-
Ferrous gluconate, NF, t.l., works E. lb.	2.25	-
Ferrous naphthenate, liq., 6%, Fe. dms., dlvd. lb.	1.17	-
Ferrous sulfate, moist, bulk, t.l. f.o.b. works ton	30.00	-
heptahydrate, gran., bulk, t.l., f.o.b. works ton	145.00	150.00
monohydrate, gran., bulk., t.l., f.o.b. works ton	170.00	180.00
USP, powd., 400-lb. dms. lb.	.49	-
cryst., 250-lb. dms. lb.	.61	-
Fir oil, Canada dms. lb.	10.00	-
Siberia, dms. lb.	12.75	-
Fish oil, refd., alkali, tanks, c.l. lb.	.29	-
kettle-bodied, tanks. lb.	.32	.36
light, cold-pressed, dms., c.l. lb.	.34	-
tanks lb.	.26	-
Fishmeal, dom., menhaden, 60% protein grd., bulk, f.o.b. Atlantic port. ton	295.00	-
f.o.b. Gulf port ton	290.00	-
imp., Chilean, 65% protein min., bulk, c.l., t.l., ex whse., f.o.b. Atlantic and Gulf ports. ton	285.00	-
Fluoboric acid, dms., t.l., works, frt. equald. lb.	.70	-
Fluorocarbon, No. 11 bulk, tanks, dlvd. lb.	.57	.64
No. 12, bulk, same basis lb.	.68	.74
No. 22, bulk, same basis lb.	1.05	1.14
No. 113, bulk, same basis lb.	.89	.93½
No 114, bulk, same basis lb.	1.02	1.08
Fluosilicic acid (see Hydrofluosilicic acid).		
Formaldehyde, 37% methanol free (uninhibited) dlvd., gulf lb.	.088	.0905
44-45% (1% methanol) tanks, dlvd. lb.	.1015	.1065
37% (inhibited 7% methanol, dlvd. lb.	.0945	.1025
37% (inhibited 11-15% methanol) tanks, dlvd. lb.	.1055	.1080
Formamide, tanks, f.o.b. lb.	.39	-
dms., same basis lb.	.44	-
Formic acid 90% tanks, f.o.b. works lb.	.36½	-
95% dms., c.l., works lb.	.51½	-
Fructose, cryst., 16,000 kilos or more, dms. lb.	.90	1.03
Fumaric acid, food grade, bgs. t.l., frt. equald. E. lb.	.75½	.77½
tech. grade, bgs., t.l., f.o.b. frt. equald. lb.		.62½
Furfural, tanks, f.o.b. Cedar Rapids, Iowa, and Belle Glade, Fla. lb.	.75	-
Furfuryl alcohol, tanks, f.o.b. Memphis, Tenn. and Omaha, Neb. lb.	.72	-

G

G salt, dms., frt. alld. 100% basis lb.	2.30	-
Gallic acid, 400-kilo lots kilo	23.05	-
Garlic oil, dms., Egyptian kilo	100.00	110.00
Gelatin, edible, 100 AOAC test, dms., l.t.l., dlvd. lb.	1.50	1.75
125 AOAC test, dms., l.t.l. lb.	1.76	1.85
150 AOAC test, dms., l.t.l. lb.	1.85	1.95
175 AOAC test, dms., l.t.l. lb.	1.95	2.05
200 AOAC test, dms., l.t.l. lb.	2.05	2.15
225 AOAC test, dms., l.t.l. lb.	2.10	2.25
250 AOAC test, dms., l.t.l. lb.	2.20	2.35
275 AOAC test, dms., l.t.l. lb.	2.30	2.45
300 AOAC test, dms., l.t.l. lb.	2.50	2.65
Gentian violet (see Methyl rosaniline chloride).		
Geraniol, syn., 90-92%, dms. lb.	5.25	-
nat., 90-92%, dms. lb.	3.50	-
syn. 95-98%, dms lb.	5.75	-
Geranium oil, Moroccan lb.	48.00	-
Bourbon lb.	55.00	-
Chinese lb.	23.00	-
Egypt lb.	22.00	-
Turkish (see Palmarosa oil).		
Geranyl acetate, dms lb.	5.44	6.00
nat., dms lb.	10.95	-
Geranyl formate, syn., dms. lb.	6.60	-
nat., dms lb.	15.65	-
Gilsonite, g.p., bulk, c.l., f.o.b. Bonanza, Utah ton	180.00	-
selects, same basis ton	180.00	-
Ginger, Cochin, bgs. lb.	.63	.65
Chinese lb.	.52	.63
Ginger oil, Chinese kilo	35.00	44.00
Indian kilo	65.00	-
Ginger oleoresin, NF, bots. lb.	30.00	-
Glauber's salt (see Sodium sulfate).		
Glucolic acid tech. 50% dms., c.l., t.l., f.o.b. works lb.	.50	-
tanks, same basis lb.	.44	-

CHEMICAL PRICES

WEEK ENDING NOV 7, 1986

Glue, bone, extracted, green, jellygrams, bgs., c.l. lb.	-	-
85 jellygrams, bgs., c.l., f.o.b. lb.	.86	-
115 jellygrams, bgs., c.l., f.o.b. lb.	.78	-
135 jellygrams, bgs., c.l., f.o.b. lb.	.77	-
164 jellygrams, bgs., c.l., f.o.b. lb.	.79	-
192 jellygrams, bgs., c.l., f.o.b. lb.	.87	-
220 jellygrams, bgs. c.l. f.o.b. lb.	.93	-
Glue, hide,		
108 jellygrams, bgs., t.l., f.o.b. lb.	.80	-
135 jellygrams, bgs., t.l., f.o.b. lb.	.85	-
164 jellygrams, bgs., t.l., f.o.b. lb.	.90	-
192 jellygrams, bgs., t.l., f.o.b. lb.	.95	-
222 jellygrams, bgs., t.l., f.o.b. lb.	1.00	-
251 jellygrams, bgs., t.l., f.o.b. lb.	1.05	-
283 jellygrams, bgs., t.l., f.o.b. lb.	1.10	-
315 jellygrams, bgs., t.l., f.o.b. lb.	1.15	-
347 jellygrams, bgs., t.l., f.o.b. lb.	1.20	-
379 jellygrams, bgs., t.l., f.o.b. lb.	1.25	-
411 jellygrams, bgs., t.l., f.o.b. lb.	1.30	-
444 jellygrams, bgs., t.l., f.o.b. lb.	1.35	-
477 jellygrams, bgs., t.l., f.o.b. lb.	1.40	-
Glutamic acid, 99½% dms., 100-lb. lots, frt. alld. kilo	6.65	-
Glycerine, nat., refd., USP, CP 99½% tanks, dlvd. lb.	.89½	-
USP, CP, nat. 96%, tanks, dlvd. lb.	.87¼	-
Syn. 96%, tanks dlvd. lb.	.89¼	-
Syn. 99.5%, tanks dlvd. lb.	.91	-
Glycine (see Aminoacetic acid).		
Glyceryl guaiacolate. 100-lb. fib. dms. f.o.b. kilo	14.50	-
Glycolic acid (see Hydroxyacetic acid)		
Glyoxal 40% soln., bulk, tanks, dlvd lb.	.44½	-
Grapefruit oil, Fla., dms. lb.	3.00	-
Calif., dms. lb.	3.00	-
Israeli lb.	3.00	-
Graphite, amorph, powd., bgs., dms., ex whse. lb.	.16	.40
cryst, 88-90%. powd., bgs., dms., ex whse. lb.	.30	.60
Graphite, cryst., 90-92%, powd., bgs., dms., ex whse. lb.	.40	.75
95-96% powd., bgs., dms., ex whse. lb.	.60	.90
Graphite, amorph., cryst., 97% and up, powd., bgs., dms., ex whse. lb.	.80	1.20
Graphite, flake, No. 1, 90-95%, bgs., dms., ex whse. lb.	.65	.75
No. 2, 90-95%, bgs., dms., ex whse. lb.	.65	.75
Grease (See Oils, Fats & Waxes market report)		
Grease oil (See Lard oil).		
Guaiacol, tech., 500-lb dms., 24,000 lb. min., f.o.b. Wallingford, Conn. lb.	2.70	-
Guaiacwood oil, dms. lb.	3.75	-
Guar gum, edible, bgs., c.l., f.o.b. ship't. pt. lb.	.50	.75
Indust., bgs., high viscosity, c.l., same basis lb.	.50	.65

H

Heliotropin, dms. lb.	8.00	8.25
Hemlock oil (see Spruce oil).		
Henbane leaves, bls. lb.	.55	-
Heptane, indust., tanks, f.o.b. Beaumont, Tex. gal.	1.07	-
95%, tanks, f.o.b. Houston, Tex. gal.	1.18	-
Heptanoic acid, syn., tanks, f.o.b. lb.	.65	-
1-Hexadecanol, syn., tanks, f.o.b. lb.	.43½	-
Hexahydrophthalic anhydride, tech. dms., l.t.l., f.o.b. works lb.	1.42	-
Hexamethylenetetramine, gran. bgs., c.l., t.l., works lb.	.55	-
gran. dms., c.l., t.l., works lb.	.59	-
pdr. bgs., c.l., t.l., works lb.	.60	-
powd. dms, c.l., t.l., works lb.	.63	-
Hexane, indust., tanks, works gal.	1.01	1.16
95%, tanks, f.o.b. Houston, Tex. gal.	1.12	-
1-Hexanol, syn., tanks, f.o.b. lb.	.60	-
Hexyl alcohol, mixed isomers, tanks lb.	.32	-
p-Hexyl methacrylate, dms., c.l., works lb.	.75½	-
Hexylene glycol, tanks, dlvd. lb.	.50	-
Hexylresorcinol, USP, dms., 25-lb. lots or more, frt. alld. lb.	30.00	-
Homatropine hydrobromide, USP, 10-100-oz. lots, bots. oz.	10.25	11.30
Homatropine methylbromide, USP, 10-250 oz. lots, bots. oz.	9.70	10.70
Horehound herb, bls. lb.	.25	.28
Hydrazine hydrate, 85%, t.l., frt. alld. lb.	1.64	-
55-gal. dms., t.l., frt. alld. lb.	1.61	-
Hydriodic acid, purif., 47%-57%, 2-cbys., f.o.b. works lb.	7.50	-
Hydroabietyl alcohol, tech., solid. dms., c.l., f.o.b. zone 1 lb.	.85	-
tanks, f.o.b. zone 1 lb.	.80	-
Hydrobromic acid, 48% dms., c.l., t.l., f.o.b. lb.	.38½	-
Hydrochloric acid, anhyd. (see Hydrogen chloride).		

CHEMICAL PRICES

WEEK ENDING NOV 7, 1986

Product	Unit	Price	Price
Hydrochloric acid, 20° Be, tanks, works, East	ton	55.00	65.00
Midwest	ton	60.00	70.00
Gulf Coast	ton	57.00	-
West Coast	ton	90.00	105.00
22° acid, same basis, East	ton	68.00	78.00
Midwest	ton	66.00	70.00
Gulf Coast	ton	63.50	-
West Coast	ton	100.00	115.00
NOTE: Prices vary and are either freight collect freight equalized depending on producer and location.			
Hydrocortisone acetate, micronized, dms., 25 kilos or more	gram	.70	-
Hydrocortisone, alcohol, micronized, dms., 25 kilos or more	gram	.70	-
Hydrofluoric acid, anhyd. (see Hydrogen fluoride)			
Hydrofluoric acid, aqueous. 70% tanks., f.o.b. frt. equald	100lbs.	43.00	-
Hydrofluosilicic acid, 15-gal. dms., t.l., works, 30% basis	ton	-	-
tanks, 100% basis, works	ton	190.00	210.00
Hydrogen bromide, anhyd. cyls., extra, 30,000-lbs., f.o.b. works	lb.	7.00	-
Hydrogen chloride, anhyd., 50-lb. cyls., c.l., works	lb.	.85	-
600-lb. cyls., c.l., same basis	lb.	.82	-
Hydrogen chloride, anhyd., tube trailers, seller's trailer, min. 100,000 lbs. a year	lb.	.37	-
tube trailers, buyer's trailer	lb.	.27	-
Hydrogen chloride anhyd., tanks, works	ton	270.00	-
Hydrogen cyanide, liq., 99.5%, tanks, works	lb.	.50	-
Hydrogen fluoride, anhyd., tank cars c.l., f.o.b., frt. equald	lb.	.6375	-
Hydrogen peroxide, 35% tech., tanks, works, ft. equald	lb.	.2325	-
50% tankcars, frt. equald	lb.	.3225	-
70%, tankcars frt. equald	lb.	.45	-
Hydrogen sulfide, liq., 99.25% min. seller's tanks, works	lb.	.12	.13
170 lb. cylinders	lb.	2.27	-
Hydroquinone, photo grade, consumers c.l., t.l., dlvd	lb.	2.54	-
tech., dms. c.l., dlvd	lb.	1.95	-
Hydroxyacetic acid, tech., 70%, tanks, Belle, W. Va.	lb.	.49½	-
Hydroxylammonium sulfate, dms., t.l., f.o.b.	lb.	.83	-
p-Hydroxybenzene sulfonic acid (see p-Phenolsulfonic acid).			
Hydroxybutyl methylcellulose (visc. 12,000 cps.) 50 lb. bags, tl., cl. 30,000 lb. min., dlvd., zone 1	lb.	2.10	-
Hydroxycitronellal dimethyl acetal, dms.	lb.	18.55	-
p-Hydroxydiphenylamine, dms., t.l., f.o.b. works	lb.	4.10	-
Hydroxycitronellal, natural, dms.	lb.	9.40	-
pure, dms.	lb.	13.80	-
extra grade, dms.	lb.	14.80	-
syn., dms.	lb.	9.50	-
Hydroxyethyl cellulose, t.l., dlvd.	lb.	2.07	2.12
Hydroxyethyl methylcellulose (visc. 5,000 through 45,000 cps.) 50 lb. bags, t.l., c.l, 30,000 lb. min., dlvd., zone 1	lb.	2.73	-
Hydroxypropyl methylcellulose, premium, U.S.P. (visc. 4,000 through 15,000) 50 lb. bags, t.l., c.l., 30,000 lb. min., dlvd., zone 1	lb.	2.87	-
Hydroxypropyl methylcellulose, U.S.P (visc. 50 through 100 cps) 50 lb. bags, t.l., c.l., 30,000 lb. min., dlvd., zone 1	lb.	2.99	-
Hydroxypropyl methylcellulose (visc. 4,000 through 15,000 cps) 50 lb. bags, t.l., c.l., 30,000 lb. in., dlvd., zone 1	lb.	2.17	-
Hydroxypropyl methylcellulose (visc. 50 through 100 cps) 50 lb. bags, t.l., c.l., 30,000 lb. min., dlvd., zone 1	lb.	2.84	-
8-Hydroxyquinoline (see Oxyquinoline)			
Hypophosphorous acid, purif., 50% dms., c.l., works	lb.	3.15	-

I

Product	Unit	Price	Price
Ichthammol. NF, 200-kilo dms.	lb.	4.25	4.50
Iminodiacetic acid, 95% min., dms., c.l., t.l, works	lb.	3.00	-
Indole, dms.	lb.	25.50	-
Inositol, 50-kilo dms., 1000 kilos or more, f.o.b. works	kilo	17.50	22.00
Iodine, crude, dms.	kilo	13.50	18.00
Iodine USP	lb.	14.21	14.59
Iodochlorhydroxyquin, USP, XVI 50-kilo dms., 100-499 kilos, frt. alld	kilo	35.00	45.00
Iodoform. NF, dms., 300-lbs., f.o.b. works	lb.	24.00	-
a-Ionone, dms.	lb.	18.20	-
b-Ionone, dms.	lb.	13.10	-
Ipecac root, whole, bgs.	lb.	25.00	-
Irish moss, bleached, prime, whole	lbs.	.55	.60
Iron blue, alkali-resistant, bgs., l.c.l., ton lots, div. E.	lb.	2.70	-
Iron blue, reg., bgs., l.c.l., ton lots, same basis	lb.	2.00	2.15
Iron, purif., powd., pails, 10-100-lb. lots	lb.	1.00	-
Iron oxide, black, syn., bgs., c.l., frt. equald	lb.	.68½	.75½
Iron oxide, brown, syn., bgs., c.l., frt. equald	lb.	.68	.78½
Iron oxide, metallic brown, l.c.l., bgs., frt. equald	lb.	.13	.15
Iron oxide, nat., red., dom., pure, bgs., c.l., works	lb.	.275	.40
Iron oxide, yellow	lb.	.18	-
syn., bgs., c.l., frt. equald	lb.	.63	.71
Iron oxide, buff, nat., dom, bgs., c.l., t.l., works, light	lb.	.75	.80
dark	lb.	.60	-
other shades, bgs., c.l., frt. equald	lb.	.50	.55
Isatoic anhydride, bgs., f.o.b. works	lb.	1.40	-
Isoamyl alcohol, 95% tanks, frt. alld	lb.	1.44	1.48
Isoborneol, 100 lb. dms.	lb.	7.25	-
Isobornyl acetate, dms.	lb.	.80	1.15
Isobutyl acetate, solvent grade, tanks, frt. alld	lb.	.45	.48
Isobutyl acrylate, tanks, frt. alld. E.	lb.	.71	-
Isobutyl alcohol, tanks, dlvd	lb.	.29	-
Isobutylene, 99%, tanks, f.o.b. works	lb.	.32	-
Isobutyl isobutyrate, tanks, f.o.b. works	lb.	.42½	-
Isobutyl methacrylate, tanks, dlvd.	lb.	.87	-
Isobutyl phenylacetate, dms.	lb.	3.10	3.50
Isobutyl salicylate, dms.	lb.	3.45	-
Isobutyraldehyde, tech., dms., c.l., dlvd	lb.	.43	-
tanks, dlvd	lb.	.35	-
Isobutyric acid, dms., c.l., t.l., dlvd.	lb.	No Prices	
tanks, same basis	lb.	.75	
Isobutyronitrile, dms., c.l., f.o.b. works frt. collect	lb.	.84	-
tanks, same basis	lb.	.75	-
Isoeugenol, dms.	lb.	5.20	5.60
Isoniazid, powd.	kilo	12.00	-
Isonicotinic acid, hydrazine (see Isoniazid).			
Isononyl alcohol, dms., t.l.	lb.	.48	-
Iso-octyl alcohol, tanks, dlvd.	lb.	.44	-
Isophorone, tanks dlvd	lb.	.81	-
Isophthalic acid, 99%, bulk, f.o.b., Joliet, Ill., min. frt. alld.	lb.	.48	-
Isophthalonitrile, bgs., t.l., works	lb.	2.65	-
Isopropyl acetate, tanks, dlvd.	lb.	.47	-
Isopropyl alcohol, anhyd., 99%, tanks, dlvd	gal.	1.38	-
refd., 95%, tanks, dlvd.	gal.	1.31	-
refd., 91%, tanks, dlvd.	gal.	1.25	-
Isopropyl ether, tanks, dlvd	lb.	.44	-
crude, tanks, dlvd	lb.	.37	-
Isopropylamine. (see Mono-, Di- or Tri-).			
Isopropyl myristate, dms., t.l., E.	lb.	1.19	1.50
Itaconic acid, retd. bgs t.l.	lb.	1.45	1.48

J

Product	Unit	Price	Price
J acid, paste, dms., works, 100% basis	kilo	4.75	-
Japan wax, cs.	lb.	5.50	5.80
Jojoba oil, 55-gal. dms., f.o.b. Arizona producing point	gal.	30.00	40.00
Juniperberry oil, Italian	kilo	120.00	-

K

Product	Unit	Price	Price
Kaolin, water washed, fully calcined, bags c.l., f.o.b. Georgia	ton	255.00	-
NF pwd., colloidal, bacteria controlled, 50 lb. bags., 5,000 lb. lots	lb.	.24	-
Kaolin, uncalcined. No. 1 coating, bulk, c.l., f.o.b., Georgia	ton	94.00	-
No. 2 coating	ton	75.00	-
No. 3 coating	ton	73.00	-
No. 4 coating	ton	70.00	-
filler, gen,l purpose, same basis	ton	58.00	-
delaminated water washed, uncalcined paint grade 1 micron avg., same basis	ton	182.00	-
dry-grd. airfloated soft, same basis	ton	60.00	-
Karaya gum, No. 1, powd., bbls.	lb.	2.25	-
No. 2, powd., bbls.	lb.	1.95	-
Kola nuts, bgs.	lb.	.52	.57

L

Product	Unit	Price	Price
Lacquer diluent petroleum, 140F.-200F. b.r., t.c., New Jersey and New York	gal.	1.25	-
Houston, Texas	gal.	1.29	-
Lacquer diluent, petroleum 200F.-240F. b.r., tankcars, New York and New Jersey	gal.	1.20	1.25
Houston, Tex.	gal.	1.12	-
Lactic acid, food grade 88%, t.c., f.o.b. works	lb.	1.06	-
50%, t.c., frt. equald	lb.	.62	-
tech., 88%, t.c., frt. equald	lb.	1.03	-
Lactose, edible, reg. bgs., c.l., works	lb.	.22	.26
Lactose, USP, reg. dms., c.l., t.l., frt. equald	lb.	.55	.69
Lactose, USP, spray dried, bgs., t.l., frt. equald	lb.	.60	-
Lake C. red toner. (red 53) bbls., frt. alld	lb.	5.70	-
Lanolin, anhyd., cosmetic. 400-lb. dms., works	lb.	1.18	1.25
pharmaceutical, 400-lb. dms. works	lb.	1.15	-
tech., (under 2% f.f.a.), 400-lb. dms., works	lb.	1.08	113
Lard (See Oils, Fats & Waxes market report.)			
Lard oil, No. 1, dms., c.l., f.o.b.	lb.	.34	-
tanks, same basis	lb.	.28	-
Lard oil, extra, winter-strained, dms., c.l.	lb.	.41	-
tanks, same basis	lb.	.33	-
prime, burning, dms., c.l., same basis, Chicago	lb.	.43	-
prime, burning, tanks, same basis	lb.	.35	-
NOTE: 300 Mi. rad. 1¼c. higher, except Texas, 2c., and West Coast, 3c. higher.			
Laurel leaves, Turkish	lb.	3.00	3.10
Laurent's acid, drums, f.o.b.	lb.	3.85	-
Lauric acid, coml., pure bgs., c.l.	lb.	.65	.71
Lauric aldehyde (aldehyde C-12). dms.	lb.	7.75	-
n-Lauryl methacrylate, dms., c.l., t.l., works	lb.	1.72	-
Lavandin oil, Abrials, 30-32%, dms.	lb.	6.50	-
Lavender flowers, ord.	lb.	.65	.75
medium, bls.	lb.	.80	.90
select. bls.	lb.	1.10	1.19
Lavender flower oil, NF, French, 40-42%, ester, cns	lb.	9.00	13.00
spike, Spanish, dms.	kilo	13.00	14.00
Lead acetate, purif., flake. 400-lb. dms., works	lb.	.46	-
tech., flake, t.l., 400lb. dms., works	lb.	.37	-
Lead blue, basic, sulfate, bbls., c.l., shipt. pt., f.o.b.	lb.	.87	-
Lead carbonate. (see Lead white basic carbonate).			
Lead chloride, 400-lb. dms., works.	lb.	3.25	-
Lead dioxide, tech., powd., 200-lb. dms., t.l., works	lb.	.66	.70
Lead fluoborate, liq. conc., dms., t.l., works, frt. equald	lb.	.65	-
Lead metal, dlvd	lb.	.24	-
Lead monosilicate, milled, bgs., c.l., f.o.b. works	lb.	.58½	-
coarse, bgs., c.l., same basis	lb.	.57½	-
Lead naphthenate liq., 24% Pb. dms., frt. alld	lb.	.93	-
Lead nitrate tech., cryst., 400-lb. dms., t.l., works	lb.	.32½	-
Lead peroxide (see Lead dioxide).			
Lead red, 95% Pb_3O_4, or less, bgs. c.l., works	lb.	.37	-
Lead red, 97% Pb_3O_4, bgs. c.l., works	lb.	.37½	-
Lead, red, 98% Pb_3O_4, bgs., c.l., same basis	lb.	.37½	.40½
Lead silicate (see Lead, white, basic silicate).			
Lead silicochromate, bgs., c.l., works	lb.	.35	-
Lead sulfate (see Lead, blue, basic sulfate and Lead, white, basic sulfate)			
Lead, white, basic carbonate, bgs., c.l., frt. alld	lb.	.62	-
Lead, white, basic, silicate, bgs., c.l., same basis	lb.	.67	-
Lead, white, basic sulfate, bgs., c.l., same basis	lb.	.65	-
Lecithin, edible, tech., bleached, non-ret. dms., l.c.l., works	lb.	.36	-
unbleached non-ret. dms., l.c.l., same basis	lb.	.34	-
edible, tech. bleached, non-ret., dms., t.l., works	lb.	.28	-
unbleached, non-ret., dms., t.l., same basis	lb.	.26	-
Lemon oil, Argentina	kilo	15.00	-
Brazil	lb.	9.00	-
Calif., USP, dms.	lb.	8.50	9.50
Italian	lb.	12.50	-
Lemongrass oil, Indian, dms.	kilo	11.25	-
Guatemalan, dms.	lb.	2.25	-
dl-Leucine, dms., 1 kilo works	kilo	60.00	90.00
Licorice root, whole, bls	lb.	.40	.50
gran., bls	lb.	.70	.90
powd., bls	lb.	.95	-
Lignosulfonate (see under Ammonium or Sodium lignin sulfonate).			
Lime, chemical, pebble (quicklime), bulk, 50,000 lbs., works, f.o.b. plants	ton	39.00	45.00
Lime, chemical, hydrated, bulk, same basis	ton	48.00	50.00
bgs., same basis	ton	54.00	57.00
Lime, NF, purif., 100-lb. dms.	lb.	.09	-
Lime oil, dist., Mexican, dms.	lb.	5.60	-
Haitian, dist., dms.	lb.	6.50	-
expressed, dms.	lb.	17.50	-
Lime salts (see Calcium).			
d-Limonene, dms.	kilo	.70	.85
Linalool ex bois de rose oil, dms.	lb.	6.35	-
syn., 95-100% dms., f.o.b. works	lb.	2.93	-
Linalool oxide, syn., 55-gal. dm.	lb.	7.75	-
Linalyl acetate ex bois de rose oil, 90-92%, dms.	lb.	18.00	21.00
syn. 98-100%, dms., f.o.b. works	lb.	3.10	-
Linalyl benzoate, syn., 55-gal. dms.	lb.	8.00	-
Linalyl cinnamate, syn., 55-gal. dms.	lb.	59.85	-
Linalyl formate, syn., 55-gal. dms.	lb.	7.75	8.50
Linalyl isobutyrate, syn., 55-gal. dms.	lb.	6.50	6.65
Lindane, 20% formulation, dms., dlvd	gal	13.10	-
99.9% tech., dms., t.l., dlvd	lb.	6.50	-
Linalyl propionate, syn., 55-gal. dms.	lb.	7.90	-
Linden flowers, with leaves, bls.	lb.	.78	.85
without leaves, bls.	lb.	.90	1.15
Linseed meal (see Oils, Fats & Waxes market report).			
Linseed oil, (see Oils, Fats & Waxes market report)			
Linseed oil fatty acid, dist., dms.	lb.	.60	.67
tanks	lb.	.53	.62
Litharge, coml., powd., bgs., c.l., works	lb.	.36½	.60
Lithium bromide, anhyd., dms., ton lots, dlvd.	lb.	6.27	-
soln., same basis	lb.	4.00	-
Lithium carbonate, powd., bgs., c.l., t.l., dlvd	lb.	1.50	-
Lithium chloride, anhyd., c.l., t.l., dlvd.	lb.	3.32	-
soln., dms., c.l., t.l., dlvd.	lb.	2.94	-
Lithium fluoride, dms., c.l., t.l., dlvd.	lb.	4.90	-
Lithium hydride, c.l., t.l., dlvd. 10,000 or more	lb.	23.50	
Lithium hydroxide, monohydrate, dms., c.l., t.l., dlvd	lb.	1.93	
Lithium hypochlorite, c.l., t.l., works	lb.	1.07	
Lithium metal, 1,000-lb. lots or more, dlvd	lb.	22.70	
Lithium nitrate, tech., dms., 100-lb. lots	lb.	3.25	
Lithium stearate, bgs., c.l., frt. alld.	lb.	1.01	
Lithium sulfate, anhydrous, t.l. dlvd.	lb.	3.09	
Lithol red toner, barium, dms., frt. alld.	lb.	3.27	
calcium, dms., same basis	lb.	3.50	
Lithol rubine toner (red 57), resinated, dms., frt. alld	lb.	6.60	
Litsea cubeba oil, dms.	lb.	2.60	
Locust bean gum, powd., bgs.	lb.	6.00	
2,4-Lutidine, dms., t.l., frt. equald.	kilo	6.75	
Lycopodium, 60-lb. dms.	lb.	8.00	
1-Lysine monohydrochloride, feed grade, 10,000 lbs. dlvd.	lb.	1.35	

M

Product	Unit	Price	Price
Mace, East Indian, siftings	lb.	4.95	
Slauw #2	lb.	5.60	
Magnesia, tech., light, neoprene-grade, bgs., c.l., t.l., works	lb.	.75	
Magnesia, syn., tech., chemical-grade, bulk, c.l., t.l. works	ton	330.00	
bags, c.l., t.l., same basis	ton	385.00	
deadburned, bulk, same basis	ton	392.00	
bgs., same basis	ton	409.00	
Magnesia, nat., tech., heavy, 85%, 150 mesh, bulk, c.l., t.l., f.o.b. Nev.	ton	232.00	
90%, 325 mesh, same basis	ton	265.00	
Magnesium bromide, 80-lb. dms., hexahydrate	lb.	2.50	
Magnesium carbonate, light, tech., bgs., c.l., t.l., works, frt. equald	lb.	.73	
USP, lite bgs., c.l., same basis	lb.	.74	
USP, heavy, bgs., c.l., same basis	lb.	.83	
Magnesium chloride, anhyd., 92%, flake or pebble dms., c.l., works	lb.	.12½	
Magnesium chloride, hydrous, 99%, flake, bgs., c.l., works	lb.	.14½	
Magnesium gluconate, 100-lb. dms. f.o.b. works, E.	lb.	4.25	
Magnesium hydroxide, NF, powd., dms., c.l., t.l., works frt. equald	lb.	.78	
Magnesium lauryl sulfate, tanks, f.o.b. works	lb.	.22	
Magnesium metal, 99.8%, ingots, 10,000-lb. lots or more, f.o.b. Freeport, Tex.	lb.	1.53	
die casting alloys	lb.	1.29	
Magnesium nitrate, tech., flake, 250-lb. dms., t.l., works	lb.	.32	
Magnesium oxide, USP, light, bgs., c.l., works, frt. equald	lb.	1.65	
heavy, dms., c.l., same basis	lb.	1.54	
Magnesium oxide, tech. (see Magnesia).			
Magnesium phosphate, tribasic, tech. 60-lb. bgs., f.o.b.	lb.	1.00	
Magnesium silicate (see Talc).			
Magnesium silicofluoride, bgs., c.l., t.l. works	lb.	.1645	
Magnesium stearate, bulk, t.l.	lb.	.95	
Magnesium sulfate 10% Mg. (epsom salts), tech. bgs., t.l., works	lb.	.14	
bulk, same basis	lb.	.13	
USP, cryst., bgs., same basis	lb.	.13½	
USP, cryst., bulk, same basis	lb.	.14½	
Magnesium sulfate, 17% Mg. (synthetic monohydrate), tech. bgs. t.l., works	lbs.	.80	
CP, same basis	lbs.	1.25	
Magnesium sulfate, anhydrous, CP bgs., t.l., works	lbs.	1.76	
Magnesium sulfate trihydrate, tech., bgs., t.l., works	lb.	.45	
Magnesium trisilicate, USP, powd., dms. 5,000-lb. lots	lb.	.38	
USP, micronized powd., dms., 375-lb. lots	lb.	.83	
Malathion, tech., dms., t.l., works	lb.	1.82	
Maleic acid, cryst., powd., drums, 100 kilos, f.o.b.	kilos	3.20	
drums, tons, f.o.b.	kilos	2.80	
Maleic anhydride, bgs., t.l., works, frt. equald	lb.	.55	
tanks, works, frt. equald	lb.	.53	
Malic acid, purif. and food grades. 50-lb. bgs., t.l., c.l., dlvd.	lb.	.81	
Mandarin oil, Brazilian, dms.	lb.	17.75	
Mandelic acid, dms., 1,000 kilo lots	kilo	8.00	
Manganese acetate, dihydrate, dms., dlvd	lb.	.63½	
tetrahydrate, dms., t.l. dlvd.	lb.	.48	
Manganese borate printing ink drier	lb.	1.68	
Manganese borate, tech., dms.	lb.	.80	
Manganese carbonate, chemical grade, 46% Mn. bgs., 20,000-lb. lots or more, works	lb.	1.05	
Manganese chloride, anhyd., dms., 20,000-lb. lots or more	lb.	.61	
Manganese dioxide, nat., African, grd., 74%-76% MnO_2, 100-lb. bgs., c.l., works	ton	200.00	
84% MnO_2, same basis	ton	260.00	
Manganese dioxide, syn., cryst., battery grade, 90%-92% MnO_2, 100-lb. bgs., c.l., works	lb.	.70	
chemical, ferrite grade, same basis	lb.	.49	
Manganese gluconate, FCC grade, 100-lb dms., f.o.b. works	lb.	3.50	
Manganese hydrate dms., dlvd	lb.	.55	
Manganese hypophosphite, NF, dms.	lb.	4.75	
Manganese metal, electrolytic, No. 1 chip, bulk, c.l., works	lb.	[illegible]	
dms., c.l., works	lb.	[illegible]	
Manganese naphthenate, liq., 6% Mn., dms., dlvd	lb.	.87	
Manganese resinate, fused, 3½% Mn. dms., frt. alld	lb.	.34¼	-
precip. 6½-7% Mn. dms.	lb.	.42	-
Manganese sulfate, fertilizer grade, run-of-pile, 75%-78% $MnSO_4$, 25 kilo bgs., 50-ton cars, dlvd E. of Miss.	ton	280.00	-
bulk, hopper cars, same basis	ton	245.00	-
Manganese sulfate, 28% Mn, gran., bgs., c.l., t.l., works	ton	330.00	-
Manganese tallate, liq., 6% Mn, dms., frt. alld	lb.	.60	-
Mannitol, coml., powd., dms., t.l., works	lb.	3.02	-
Marjoram, French	lb.	.86	.89
Egyptian	lb.	.61	.82
MBT (see 2-Mercaptobenzothiazole).			
MBTS (see Mercaptobenzothiazyl disulfide).			
MDI (see Diphenylmethane 4,4,-di-Isocyanate)			
Melamine, bgs., c.l., t.l., 40,000-lb. min., f.o.b. works	lb.	.51½	.59½
bulk, c.l., t.l., same basis	lb.	.50	.58
Melamine-formaldehyde resin, g.p., t.l., frt. alld	lb.	.55	.60
molding compounds, same basis	lb.	.46½	-
Menhaden oil, crude, tanks, works Atlantic Coast	lb.	.12	-
Gulf ports, same basis	lb.	.13	-
Menthol, nat., USP, Brazilian large and regular crystals, spot, cs., bulk	lb.	6.50	6.75
syn., USP, racemic, 100-450 lbs.	lb.	9.00	-
2-Mercaptobenzothiazole, bgs., t.l., works, frt. alld	lb.	1.25	1.55
Mercaptobenzothiazyl disulfide t.l., dms., works, frt. alld	lb.	1.33	1.66
Mercuric chloride NF, gran., powd., 100-lb. dms., f.o.b. works	lb.	6.50	-
Mercuric oxide, red, purif., 100-lb. dms., f.o.b. works	lb.	7.00	7.25
tech., 100-lb. dms., same basis	lb.	5.50	7.00
yellow, NF, 100-lb. dms., same basis	lb.	7.00	7.25
tech., 100-lb. dms., same basis	lb.	5.50	7.50
Mercurous chloride (see Calomel).			
Mercury, ammoniated (see White precipitate USP XV).			
Mesityl oxide, tanks, dlvd	lb.	.46	-
Methacrylic acid, glacial, 99%, dms., t.l., frt. equald	lb.	.87	-
tanks, works, frt. equald	lb.	.78	-
d-Methamphetamine hydrochloride, dms.	lb.	12.00	16.00
dl-Methamphetamine hydrochloride, dms.	lb.	4.50	7.00
Methanol, syn., barges, f.o.b. producing point, Gulf Coast	gal.	.28	-
Methenamine (see Hexamethylenetetramine).			
Methionine hydroxyanalogue, dry, 85% activity t.l., frt. alld	lb.	.86	-
liquid, 88% activity, t.l. frt. alld	lb.	.88	-
dl-Methionine (see Racemethionine)			
Methoxychlor, 50% wettable powder, dealers, dms	lb.	2.05	-
Methyl abietate, non-ret. dms., c.l., dlvd. E.	lb.	9.40	-
Methyl abietate, hydrogenated, non-ret. dms., l.c.l., same basis	lb.	10.00	-
Methyl acetoacetate, East, dlvd, bulk	lb.	.85	-
Methyl acrylate, tanks, dlvd	lb.	66.00	-
Methyl alcohol (see Methanol)			
Methyl amyl alcohol, tanks, dlvd	lb.	.55	-
Methyl n-amyl ketone, tks., dlvd	lb.	.54½	-
Methyl anthranilate, tech., dms., f.o.b.	lb.	1.41	2.65
Methyl benzoate, dms., t.l.	lb.	.25	-
99.9%, perf. grade, dms., t.l.	lb.	1.65	-
Methyl bromide, det., tanks, 140,000 lbs min, frt. alld	lb.	.56¾	-
Methylcellulose, premium, USP (visc. 400 through 4,000 cps) 50 lb. bags, tl., cl., 30,000 lb., min., dlvd., zone 1	lb.	2.73	-
Methylcellulose, premium USP (visc. 15 cps) 50 lb. bags, tl., cl., 30,000 lbs., dlvd., zone 1	lb.	2.85	-
Methylcellulose, (visc. 400 through 4,000 cps) 50 lb. bgs., tl., cl., 30,000 lbs., dlvd., zone 1	lb.	2.24	-
Methylcellulose (visc. 15 to 25 cps) 50 lb. bags, tl., cl., 30,000 lb. min., dlvd., zone 1	lb.	2.52	-
Methyl chloride, indust. bulk, tanks, f.o.b. works	lb.	.26	-
Methyl chloroform (see 1,1,1-Trichloroethane).			
Methyl cinnamate, dms.	lb.	4.65	-
Methyl p-cresol, dms.	lb.	6.00	-
Methyl ethyl ketone, tanks, dlvd, E.	lb.	.235	-
Methyl eugenol, 25-lb. cns.	lb.	3.55	3.80
Methyl formate, pure, non-ret. dms., works	lb.	.41	-
tanks, same basis	lb.	.29	-
tech., tanks, works	lb.	.31	-
Methyl heptenol, syn., 55-gal. dms.	lb.	14.50	-
Methyl heptenone, pure, dms.	lb.	7.30	-
Methyl heptin carbonate, dms.	lb.	45.00	-
Methyl p-hydroxybenzoate (see Methylparaben)			
Methyl ionone, std., dms.	lb.	7.30	9.40
Methyl isoamyl ketone, tanks, dlvd. E.	lb.	.51	-
Methyl isobutyl carbinol (see Methyl amyl alcohol).			
Methyl isobutyl ketone, tanks, dlvd.	lb.	.35	-
dlvd. zone 2 (Calif.)	lb.	.38	-
dlvd. zone 3 (W. of Rockies, excluding Calif.)	lb.	.41	-
Methyl isoeugenol, 25-lb. cns.	lb.	8.60	10.40
Methyl methacrylate, tanks, dlvd.	lb.	.62	-
Methyl naphthyl ketone, cryst., dms.	lb.	14.00	-
Methylparaben, USP, 500 kilograms, f.o.b.	kilo	10.14	-
tech., 500 kilograms, f.o.b.	kilo	9.70	-
Methyl parathion, tech., 80%, dms., frt. alld. E.	lb.	1.65	-
Methyl phenylacetate, dms.	lb.	3.60	5.40
N-Methyl 2-pyrrolidone, tanks, f.o.b. plant	lb.	1.32	-
dms., c.l., t.l., same basis	lb.	1.40	-
Methyl rosaniline chloride, USP, 1-lb. cans	lb.	5.60	-
Methyl salicylate, NF, 1000-lb. dms., t.l., frt. alld	lb.	1.79	1.94
Methyl violet (see Methyl rosaniline chloride).			
Methyl violet toner, molybdated, PMA, bbls., dlvd. E. of Rockies	lb.	9.25	-
Methyl violet toner, tungstated, PTA, bbls., same basis	lb.	4.70	5.20
4,4,-Methylene dianiline (p,p-di-aminodiphenyl methane) crude, dms., t.l., f.o.b.	lb.	1.75	-
purif., flake, same basis	lb.	2.25	-
Methylene di-p-phenylene di-isocyanate (see diphenylmethane 4,4,-di-isocyanate).			
Methylene chloride, tanks, 4,000 gal.-min., consumers, dlvd.	lb.	.35	-
Methylpentanediol (see Hexylene glycol).			
Methylphenylpryazolone (see 1- Phenyl-3-methyl-pyrazolone-5).			
a-Methylstyrene, f.o.b. shipping pt.	lb.	.44	-
p-Methylnaphthalene, bulk, works.	gal.	1.38	-
Methylthionine chloride (see Methylene blue).			
Mica, dry-grd., joint cement, plastic, 50 lb., bgs., c.l., works	lb.	.07½	-
dry-grd., roofing, 20 to 80 mesh. works	lb.	.07	-
paint or lacq., wet-grd., 325-mesh, bgs., c.l., f.o.b. works	lb.	.16¾	-
rubber, bgs., c.l., f.o.b. works	lb.	.16¾	-
wallpaper, bgs., c.l., f.o.b. works.	lb.	.22	-
Microcrystalline wax, petroleum, coating grades, FDA, tanks, works	lb.	.36½	.46½
laminating grades, FDA, tanks, works	lb.	.38½	.48
Mineral oil, white, 50-65 vis., USP light tanks, refy	gal.	2.38	-
65-75 vis., tanks, refy.	gal.	2.42	-
80-90 vis., tanks, refy.	gal.	2.45	-
145-155 vis., tanks, refy.	gal.	2.53	-
USP 180-190 vis., tanks, refy.	gal.	2.54	-
200-210 vis., tanks, refy.	gal.	2.56	-
340-350 vis., tanks, refy.	gal.	2.65	-
Mineral spirits, petroleum, odorless, tanks, New Jersey	gal.	1.83	1.88
Houston, Tex.	gal.	1.78	1.79
Mineral spirits, petroleum, regular, tanks, New Jersey	gal.	1.41	1.49
Houston, Tex.	gal.	1.41	1.43
Molybdate orange, bbls.	lb.	1.52	1.95
Molybdenum metal, com,l., powd., 99.8%, dms., works	lb.	13.50	-
Molybdenum trioxide, CP, dms., works, 24,000 lbs. or more	lb.	5.25	-
tech., chemical, dms., 24,000 lbs. or more, basis	lb.	2.65	2.85
tech. metallurgical, dms. same basis	lb.	2.65	2.85
Molybdic acid (See Ammonium Dimolybdate)			
Monoammonium phosphate, fert. grade, min. 13% N. 52% P. bulk, c.l., f.o.b. Fla. works	ton	155.00	-
Monoammonium phosphate, tech., bgs., c.l., t.l., works, frt. equald	100 lbs.	54.00	-
food grade, bgs., c.l., t.l., same basis	100 lbs.	59.25	-
Mono-tert-butyl-m-cresol, bulk, t.l.	lb.	1.69	-
Monobutylamine, bulk, dlvd	lb.	.96	1.00
Monochloroacetic acid, purif. (see Chloroacetic acid, mono).			
Monochlorobenzene, tanks, f.o.b. works	lb.	.42½	-
Monoethanolamine, tanks, frt. alld. E.	lb.	.43	.46
Monoethylamine, 70% aqueous tanks, frt. prepaid, 100% basis	lb.	.94	-
anhyd., tanks, same basis	lb.	.92	-
Monoisopropanolamine, dms., c.l., frt. alld. E.	lb.	.76	-
tanks, same basis	lb.	.66	-
Monoisopropylamine, anhyd., dms., c.l., frt. prepaid	lb.	.79	-
tanks, same basis	lb.	.76	-
Monomethylamine, anhyd., tanks, contained basis frt. equald	lb.	.54½	-
25% soln., tanks, frt. alld. 100% basis	lb.	.57	-
40-60% soln., tanks, frt. equald. 100% basis	lb.	.63½	-
Monopotassium glutamate, dms., 990 lb. or more, frt. alld	lb.	2.50	-
Monosodium glutamate, 50-lb. bgs. c.l., t.l., dlvd	lb.	.76	.80
100-lb. drums, c.l., t.l., dlvd	lb.	.85	-
Monosodium phosphate (see Sodium phosphate, monobasic).			
Montan wax, crude, imp., German	lb.	.55	.57
dom., Calif., bgs., c.l., t.l., f.o.b. shipt. pt.	lb.	.61	-
refd., dom. Calif., same basis	lb.	.81	-
Morphine alkaloid, NF, 25 k lots	kilo	1016.00	-
Morphine sulfate, USP, 25 k lots	kilo	850.00	-
Morpholine, dms., c.l., frt. alld. E.	lb.	1.02	-
tanks, frt. alld., E.	lb.	.94	-
Muriatic acid (see Hydrochloric acid).			
Musk. syn., ambrette, 25-lb. cns.	lb.	6.00	7.00
Musk. syn., ketone, dms.	lb.	10.75	-
Musk. syn., xylol, dms.	lb.	3.60	-
Mustard oil, syn. (see Allyl isothiocyanate).			
Mustard seed, Brown No. 1	lb.	.22	-
Canadian No. 1 Yellow	lb.	.23	-
Oriental No. 1 bgs.	lb.	.22	-
Myrcia oil (see Bay oil).			
Myristic acid, coml., pure, t.l., bgs.	lb.	1.30	-
tanks	lb.	1.12	-
Myristica oil (see Nutmeg oil).			
Myrrh gum, bgs.	lb.	2.25	-

N

Product	Unit	Price	Price
Naphtha, high solvency (see Solvent naphtha, petroleum).			
Naphtha, petroleum, cleaners (see Cleaner's naphtha).			
Naphtha, VM&P, petroleum, tanks, New Jersey and New York	gal.	1.29	1.34
Houston, Tex.	gal.	1.20	-
Naphthalene, crude, dom., 78°, tanks, works	lb.	.22	-
Naphthalene, phthalic anhydride grade, tanks, works	lb.	.23½	-
Naphthalene, petroleum, 80°C., f.o.b.	lb.	.30	.32½
Naphthalene, refd., balls, flakes, whole salers; jobbers, dms., works	lb.	.65	.77
Naphthenic acid, crude, bulk, works	lb.	.30	.43
refined, 220 acid, same basis	lb.	.80	.90
a-Naphthol, ground, dms., t.l. dlvd.	lb.	1.61	
b-Naphthol, tech. flake, 60-lb. bgs., c.l., works	lb.	1.10	
Naphthol arylide red toner deep shades, bbls.	lb.	9.50	-
light shades, bbls.	lb.	7.75	-
2-Naphthol-3,6-disulfonic acid, disodium salt (see R salt).			
1-Naphthol-5-sulfonic acid (see L- acid).			
1-Naphthol-5-sulfonic 8-amino acid (see S acid).			
Naphthylamine sulfonic mixed acid (see Cleve's acid).			
a-Naphthylamine, tanks, f.o.b. works	lb.	2.10	-
1-Naphthylamine-5-sulfonic acid (see Laurent's acid).			
2-Naphthylamine-4,8 disulfonic acid (see Cassella acid).			
2-Naphthylamine-1-sulfonic acid (see Tobias acid).			
Neatsfoot oil, 20°F, t.l., f.o.b. works dms.	lb.	.52	-
tanks, f.o.b. works	lb.	.47	-
30°F, t.l., f.o.b. works	lb.	.52	-
tanks, f.o.b. works	lb.	.44	-
40°F, dms., t.l., f.o.b. works	lb.	.48	.49
tanks, f.o.b. works	lb.	.39	-
Delivered prices apply on shipments within 300-mile radius of Philadelphia, Pa.; other areas, 1¼c. higher; Texas, 2c. higher and West Coast 3c. higher.			
Neomycin sulfate, USP, non-sterile, dms., 50-kilo. lots, activity basis, dlvd	kilo	75.00	-
Neopentyl glycol, slurry, 90%., c.l., t.l., dlvd	lb.	.522	-
powder, flake, bgs. t.l., dlvd.	lb.	.598	
Nerol, tech., dms.	lb.	5.30	5.75
perf. grade, dms.	lb.	4.60	5.00
Neroli oil, Tunisian, bots.	kilo	2,700.00	-
Nerolidol syn. 55-gal. dms.	lb.	7.05	-
Nerolin, Bromelin	kilo	7.22	-
Niacinamide, USP, t.l. dms.	kilo	8.00	-
Niacin NF, dms., 5,000 kilos or more, dlvd.	kilo	7.50	-
feed-grade, 98-99.5%, bgs., same basis	kilo	6.10	5.50
Nickel acetate, dms., 5,000-lbs. to t.l., dlvd. E.	lb.	1.82	-
Nickel carbonate, dms., bgs., 5,000-lbs. to t.l., dlvd. E.	lb.	3.45	-
Nickel chloride, bgs., 10,000-lbs. to t.l., dlvd. E.	lb.	1.19	-
Nickel fluoborate, liq. conc., dms., t.l., dlvd. E.	lb.	1.25	-
Nickel metal, electro cathodes, cs., works	lb.	3.45	-
Nickel nitrate, dms., bgs., t.l. dlvd. E.	lb.	1.18	-
Nickel oxide, 75%-76% Ni, dms., 500-lb. lots, f.o.b. works	lb.	2.60	-
Nickel sulfate, bgs., t.l., dlvd. E.	lb.	.80	.90
Nicotinic acid (see Niacin).			
Nicotinamide (see Niacinamide).			
Nitric acid, 36° Be., 38°Be, 40°Be, 42°Be. tanks, c.l., works NF, 100% basis	ton	195.00	-
94½% to 98% HNO_3, tanks, works, 100% basis	ton	280.00	-
o-Nitroaniline, flake, dms., t.l. works	lb.	1.51	-
molten, refd., tanks, works	lb.	1.44	-
molten, tech., works	lb.	1.37	-
o-Nitroaniline, orange toner, bgs., frt. alld.	lb.	1.90	-
p-Nitroaniline, dms., c.l., t.l., 30,000 lb. min., works	lb.	1.63	-
o-Nitroanisole, 100-kilo lots	kilo	8.75	-
Nitrobenzene, tanks, f.o.b.	lb.	.33	.34
o-Nitrochlorobenzene, dms., t.l., c.l., f.o.b.	lb.	.82	-
tanks, same basis	lb.	.74	-
2-Nitro-p-cresol, tech., dms., t.l., frt. alld.	lb.	1.75	-
Nitroethane, tanks, dlvd. E.	lb.	2.50	-
Nitrogen solutions, direct application, over 32% N, and mgf. type, works	unit-ton.	1.20	-
direct application, 19-32% N.	unit-ton.	1.26	1.46
Nitrogenous sewage sludge, processed, bulk, f.o.b. Chicago	unit ton.	4.10	-
NOTE: Price is per unit NH_3 plus $1, per unit a.p.a. bulk, f.o.b. producer,s works, Chicago.			
Nitrogenous tankage, processed, bulk, per unit-ton NH_3, f.o.b. Carrolville, Wisc.	unit ton	7.00	-
f.o.b. Forbes, Me.	unit ton	6.75	-
expanded, bulk, c.l., per unit-ton N, f.o.b. Forrestdale, R.I.	unit ton	8.35	-
Nitromethane, dms., t.l., dlvd. E.	lb.	2.37	-
o-Nitrophenol, dms., f.o.b. works	lb.	1.00	-
p-Nitrophenol, dms., c.l., f.o.b. works	lb.	1.05	1.45
2-Nitropropane, tanks, frt. alld. E.	lb.	.55	-
m-Nitrotoluene, tech., dms., frt. alld.	lb.	1.15	-
o-Nitrotoluene, dms., c.l., f.o.b.	lb.	.65	-
tanks, same basis	lb.	.48	.57
p-Nitrotoluene, tech. dms., c.l., works	lb.	.63	.85
tanks, works	lb.	.70	-
Nonylphenol, tanks, f.o.b. E. of Rockies, min. frt. alld.	lb.	.49	.53½
Norephedrine hydrochloride (see Phenylpropanolamine hydrochloride)			
Nutmeg oil, dist., East Indian, NF, dms.	kilo	32.00	34.00
Nutmegs, East Indian, whole	lb.	3.15	-

O

Product	Unit	Price	Price
Ochre (see Iron oxide, yellow, nat.)			
Ocotea cymbarum oil dms.	kilo	5.15	5.20
Ocotea, Chinese 90%	kilo	5.25	-
1-Octadecanol, syn., tanks, f.o.b.	lb.	.43½	-
I-Octanol, syn., tanks, f.o.b.	lb.	.70	-
n-Octane, 97% min., tanks, f.o.b. Houston, Tex.	gal.	6.25	-
Octyl alcohol, perfumer's grade, bots., cns.	lb.	1.40	1.75
n-Octyl, n-decyl phthalate, tanks, dlvd.	lb.	.33½	.37
tert-Octylamine, dms., c.l., t.l., works.	lb.	2.60	-
Octylphenol, molten. t.c., works	lb.	.75	.76½
Oiticica oil, liq. dms.	lb.	.40	-
tanks	lb.	.32	-
Oleic acid, dbl.-dist. (white), dms.	lb.	.46	.59
tanks	lb.	.38	.44
Oleic acid, s.d. (red) dms.	lb.	.43	.49
tanks	lb.	.35	.41

CHEMICAL PRICES

WEEK ENDING NOV 7, 1986

Product	Unit	Price	Price
Oleum (see Sulfuric acid, fuming).			
Olibanum gum, tears, bgs.	lb.	2.10	-
Olive oil, edible, Spanish, dms.	gal.	6.00	-
Italian B-type	gal.	5.40	5.50
Olivine, crude, works	ton	12.00	-
20 mesh. works	ton	15.00	-
100 mesh. works	ton	20.00	-
Opium. USP, gran. powd. 25-kilo lots	kilo	125.00	-
Orange oil, expressed, USP, Calif., dms., f.o.b. plant	lb.	1.20	-
expressed Valencia, dms.	lb.	1.00	1.20
Calif., dist., cns. f.o.b. plant	lb.	.90	1.00
Florida, dms.	lb.	.60	.80
Brazilian	kilo	1.00	-
West Indian, bitter, NF X, cns., dms.	lb.	13.00	-
Orange peel, bitter, Haitian bls.	lb.	.38	-
Oregano, Greece, 30M	lb.	2.80	-
Turkey	lb.	2.80	-
Mexico	lb.	1.05	-
Origanum oil, Spanish, cns.	kilo	35.00	-
Orris root, Florentine, bls.	lb.	4.00	-
powd., bbls., bxs.	lb.	4.60	5.00
Verona bls.	lb.	3.00	-
powd., bbls., bxs.	lb.	4.60	5.00
Ouricury wax, refd., pure, bgs.	lb.	3.26	3.35
Oxalic acid, bgs., c.l., works	lb.	.44	-
b-Oxynaphthoic acid dms. works, tech.	lb.	2.56	-
Oxyquinoline base, pure, 1,000 lbs., frt. alld.	lb.	8.00	-
Oxyquinoline sulfate, 100 lbs. frt. alld.	lb.	4.00	-

P

Product	Unit	Price	Price
Palladium metal, works.	Troy-oz.	128.00	-
Palm oil, (see Oils, Fats & Waxes Market Report)			
Palm oil acid, dbl-dist. dms.	lb.	.31½	-
tanks	lb.	.30	-
s.d., dms.	lb.	.42	.45
tanks	lb.	.35	-
Palm kernel oil, bulk, c.i.f., U.S. ports	lb.	.18½	.19¼
Palmarosa oil, Indian dms.	kilo	42.00	-
Palmitic acid, 90%, tech., bags.	lb.	.53	-
tanks	lb.	.51	-
Papaverine hydrochloride, NF powd., imp. bulk	kilo	56.00	-
Paprika, Hungarian, 100 AU bgs.	lb.	.80	-
Spanish, 110 AU bgs.	lb.	.90	-
Paraffin, fully-refd., 127-130F., ASTM, tanks, refy		.29	.35
130-135 F., ASTM, tanks, refy.		.33½	.39
140-145 F., ASTM, tanks, refy.		.35	.41½
150-155 F., ASTM, tanks, refy.		.41½	.48
slack wax, 5% oil, tanks refy		.19	-
12% oil, tanks refy		.21	-
20% oil, tanks refy		.16	-
AMP temperatures are an arbitrary 3F higher than ASTP.			
Paraformaldehyde, 91%, flake, bgs. c.l., t.l., dlvd.	lb.	.29½	-
95%, powd., bgs., c.t., t.l. dlvd.	lb.	.39½	-
Paraldehyde, tech., 98%, 55-gal. dms., t.l., dlvd. E.	lb.	.76½	-
tanks, dlvd. E.	lb.	.58½	-
Parathion, ethyl, dms., frt. alld.	lb.	1.75	-
Parathion methyl (see Methyl parathion).			
Para toner red, bbls.	lb.	3.75	-
chlorinated, (red 4) kgs.	lb.	3.75	-
Patchouli oil, Indonesian, dms.	kilo	18.50	20.00
Patchouli oil, Chinese	kilo	19.00	21.00
Peach kernel oil, USP (see Apricot kernel oil).			
Peanut meal (see Oils, Fats & Waxes market report).			
Peanut oil (see Oils, Fats & Waxes market report).			
Pectin dom., NF, citrus, powd., 100-kilo lots dlvd.	kilo	3.30	3.70
Pelargonic acid, nat., tanks, min. frt. alld.	lb.	.70	-
syn., tanks, f.o.b. frt. alld.	lb.	.70	-
Penicillin, potassium, non-sterile, 200-billion-unit lots	billion units	25.00	30.00
Penicillin, procaine, sterile 50- billion-unit lots, bulk	billion units.	36.00	-
Pennyroyal oil, dms.	lb.	10.25	-
Pentachlorophenol, 50-lb. bgs., t.l., f.o.b. Wichita, Kan.	lb.	.56	-
Pentaerythritol, tech., bgs., c.l., f.o.b., frt. alld.	lb.	.71	.72
Pentaerythritol, di- and tri-isomers (see Dipentaerythritol and Tripentaerythritol).			
Pentaerythritol triacrylate, t.l. dms., f.o.b. works	lb.	1.50	-
Pentobarbital, dms., 100 lbs. or more, frt. alld.	lb.	7.00	-
Pentobarbital-sodium, dms., 100 lbs. or more, dlvd.	lb.	14.00	-
Pentylene tetrazol, NF, dms., 200-kilo lots	kilo	32.00	-
Pepper, black, Brazilian, bgs.	lb.	2.28	-
Lampong, bgs.	lb.	2.30	-
Malabar, bgs.	lb.	2.28	-
Tellicherry, bgs.	lb.	2.35	-
Pepper, red Chinese Fukien rice bgs	lb.	.89	-
Hainan, bgs.	lb.	1.00	-
Liing, bgs.	lb.	.78	-
Indian, S-4, bgs.	lb.	.70	-
Pakistan, dundicuts, bgs.	lb.	.43	-
Pepper, white, Muntok, bgs.	lb.	3.05	-
Peppermint leaves, imp., dms.	lb.	2.85	-
Peppermint oil, Madras.	lb.	14.00	-
Midwest	lb.	15.00	-
Willamette	lb.	11.00	-
Yakima	lb.	8.00	-
syn., dms. f.o.b. works	lb.	7.00	9.00
Brazilian	kilo	6.50	-
Chinese	kilo	6.90	-

CHEMICAL PRICES

WEEK ENDING NOV 7, 1986

Perchloroethylene, dry cleaning grade, distr., tanks, divd. ....lb. .26½ -
Indust., grade, consumers, tanks, divd. ....lb. .31 -
Perl acid, dms. ....lb. 2.55 -
Permanent red 2B, (red 48), calcium salts, dms., frt. alld. ....lb. 5.25 -
barium salts, same basis ....lb. 5.25 -
Peru balsam, f.o.b. ....lb. 3.25 -
Petitgrain oil, Paraguay ....lb. 5.00 -
Petrolatum, USP, snow white, dms., c.l., rely ....lb. .375 -
tanks, rely ....lb. .310 -
USP, soft white, dms., c.l., rely ....lb. .375 -
tanks, rely ....lb. .310 -
USP, lily white, dms., c.l., rely ....lb. .370 -
Petrolatum, USP, Lily white, tanks, rely ....lb. .305 -
USP, cream, dms., c.l., rely ....lb. .355 -
tanks, rely ....lb. .30 -
USP, soft yellow, dms., c.l., rely ....lb. .350 -
tanks, rely ....lb. .285 -
USP, amber, dms., c.l., rely ....lb. .345 -
tanks, rely ....lb. .280 -
Petroleum pitch (see Asphalt, petroleum).
Petroleum sulfonate, 60-62% sulfonic cont., HMW, bulk, works ....lb. .48½ .49
MMW, same basis ....lb. .49 -
LMW, same basis ....lb. .49 .49½
Prices for 61% sulfonic content 2c per lb. lower on corresponding molecular wts.
Phenacetin USP, powd., 2000-lb. dms., 1,000-lb. lots, divd. ....lb. 2.20 -
100-lb. dms., 1,000-lb. lots, divd. lb. 2.22 2.45
p-Phenetidine, dms., c.l., f.o.b. ....lb. 2.00 -
Phenobarbital, USP, dms., 500-kilo lots, f.o.b. works ....kilo 19.50 -
Phenobarbital-sodium, NF, 500-kilo lots, f.o.b. works ....kilo 27.00 -
Phenol, syn. tanks, frt. equald. ....lb. .25 .29
p-Phenolsulfonic acid, 65% sol'n., dms., c.l., fob works ....lb. .64 -
tanks, same basis ....lb. .58 -
Phenothiazine, indust. grade, 50-lb. bags, c.l., f.o.b. works ....lb. 2.33 -
purif. grade, same basis ....lb. 2.69 -
Phenyl acetate, dms., 100-lb. lots, works ....lb. 1.04 -
Phenylacetic acid, pure cryst., 25-lb. cns. ....lb. 4.50 -
dl-Phenylalanine, dms., 25-kilo lots ....kilo 84.00 -
1-Phenyl-3-carbethoxy pyrazolone-5, dms. 200-lb. lots, divd. E. ....lb. 3.45 -
m-Phenylenediamine, cast, dms., c.l., t.l., f.o.b. works ....lb. 2.07 -
o-Phenylenediamine, flaked, dms., t.l., f.o.b. works ....lb. 3.25 -
p-Phenylenediamine, flaked, dms., f.o.b. works ....lb. 4.00 -
Phenylephrine hydrochloride, USP 100-kilo lots or more ....kilo. 175.00 185.00
Phenylethyl acetate, dms. ....lb. 3.35 -
2-Phenylethyl alcohol, NF, dms. ....lb. 2.10 2.20
b-Phenylethylamine, dms., 30,000 lbs. or more, frt. alld. ....lb. 1.50 -
Phenylethylphenyl acetate, 25-lb. cns. ....lb. 5.50 6.90
Phenylglycolic acid (see Mandelic acid).
Phenylhydrazine, 99% min., dms. ....lb. 3.50 -
1-Phenyl-3-methyl-5-pyrazolone, dms., 250-lb. lots divd. E. ....lb. 1.80 -
o-Phenylphenol, dms., t.l., works ....lb. 1.35 2.00
p-Phenylphenol, bgs., t.l., 40,000 lbs. or more, works ....lb. 1.85 -
Phenylpropanolamine hydrochloride, 100-kilo dm. ....kilo 24.00 28.00
Phenylsalicylate, purif. cryst., dms., E. ....lb. 2.75 -
tech., cryst., E. ....lb. 2.25 -
flake, E. ....lb. 2.35 -
Phloxine toner (red 90), dms., frt. alld. ....lb. 1.95 2.05
Phosgene, 1-ton ret. cyls., 5 to 9-cyl. quantities, works ....lb. .55 .67
Phosphate rock, Fla., land pebble, run of mine washed, 66-68% b.p.l. bulk c.l. mines ....ton 23.15 -
vessel, Tampa, same basis ....ton 28.00 -
Phosphoric acid, com'l. and tech. grades, 75% tanks, works ....100 lbs. 29.00 -
80% tanks, works ....100 lbs. 31.00 -
85% N.F. tanks, f.o.b. freight equald. ....100 lbs. 33.50 -
Food grade prices $2.00 above tech. grade.
Phosphoric acid, agricultural grade, 52-54% a.p.a., tanks, works ....unit-ton 3.10 -
super, min. 70% a.p.a., same basis ....unit-ton 3.45 -
Phosphorus, white (yellow) solid dms., c.l., works, frt. equald. ....lb. 1.00 -
tanks, works, f.o.b. works ....lb. .91 -
Phosphorus oxychloride, tanks, frt. equald. ....lb. .40 -
Phosphorus pentasulfide, powd., dms., c.l., works ....100 lbs. 50.00 -
tote bins, sellers ....100 lbs. 45.00 -
Phosphorus pentoxide, dms., t.l., works ....lb. .82 -
Phosphorus sesquisulfide, dms., cvs., c.l., works ....lb. .38 -
Phosphorus trichloride, dms., c.l., works ....lb. .40 -
tanks, works ....lb. .35 -
Phthalic anhydride, flake, c.l., t.l., dms., frt. equald. ....lb. .30 -
molten, tanks, same basis ....lb. .27 -
Prices 1-1½c. per lb. higher on the West Coast
Phthalimide, flake, works ....lb. .55 -
Phthalocyanine blue toner, red shade, bbls., frt. alld. E. of Rockies ....lb. 9.10 9.50
green shade, same basis ....lb. 8.40 8.50
resinated, bbls., same basis ....lb. 8.20 8.75

Phthalocyanine blue toner, water dispersable, bbls., same basis ....lb. 7.05 7.75
Phthalocyanine green toner, all grades, bbls., frt. alld. E. of Rockies ....lb. 8.10 10.10
Phthalocyanine green toner, resinated, same basis ....lb. 7.45 9.20
Phthalylsulfacetamide, dms., 500-kilo lots ....kilo. 8.61 -
Picolines, refd., mixed, bulk ....kilo 2.81 -
Picric acid, pure paste, 25-lb. ctns., c.l., dry basis, f.o.b. Charlotte, N.C. ....lb. 6.00 -
tech., paste, 25-lb. ctns., t.l., dry basis, f.o.b. Charlotte, N.C. ....lb. 5.00 -
Pigment green B, kgs. ....lb. 2.20 -
Pilocarpine hydrochloride, USP, dms. ....kilo. 1,500.00 2,000.00
Pimento see Allspice
Pimento leaf oil, dms. ....lb. 13.90 -
Pine oil, 60% min. alcohol content, bulk, f.o.b. works ....100 lbs. 47.00 53.00
dms., c.l., t.l., same basis ....100 lbs. 51.00 54.00
a-Pinene, perfume grade ....kilo 1.82 -
tech. grade ....lb. .18 .23
b-Pinene, perfumery grade, tanks ....kilo 2.30 -
tech. grade, tanks ....lb. .35 .40
Piperazine, anhyd., dms., t.l., frt. alld. E. ....lb. 1.80 -
Piperazine citrate, 36%, dms., 1,100-lb. lots, frt. alld. ....lb. 2.25 2.35
Piperazine dihydrochloride, 63%, dms., t.l., frt. alld. ....lb. 2.00 -
Piperazine hexahydrate, 44%, dms., 1,100-lb. lots, frt. alld. ....lb. 1.60 -
Piperazine phosphate, 42%, dms., t.l., frt. alld. ....lb. 1.80 -
Piperidine dist. 98% min., dms., c.l., t.l., works ....kilo. 6.92 -
Piperonyl butoxide dms. divd. E. ....lb. 5.00 -
Platinum, metal, works ....Troy oz. 569.00 -
Polycarbonate resin, pellets, nat., t.l., frt. alld. ....lb. 1.84 1.86
Polyester resin, unsaturated, g.p., orthophthalic, bulk, tankcars, frt. alld. ....lb. .51 .53
Isophthalic, same basis ....lb. .56 .62
Polyethylene resin, high-density, blow molding, g.p., hopper cars, frt. alld. ....lb. .44 .52
injection molding, g.p., hopper cars, frt. alld. ....lb. .43 .46
extrusion, g.p., hopper cars, same basis ....lb. .47 .48
wire and cable, nat., hopper cars, same basis ....lb. .54 .65
wire and cable, black, same basis ....lb. .66 .75
Polyethylene resin, low-density, film line, hopper cars, frt. alld. ....lb. .35 .36
clarity film, hopper cars, frt. alld. ....lb. .35 .37
pellet shrink film, hopper cars, same basis ....lb. .35 -
extrusion coating, hopper cars, same basis ....lb. .36 .42
g.p., hopper cars, same basis ....lb. .37 .38
Polyethylene linear low-density g.p. resin ....lb. .36 .40
blown film resin ....lb. .40 .43½
cast film resin ....lb. .40 .45
Polyethylene resin, low-density injection molding, g.p., hopper cars, same basis ....lb. .45 .48
fine wire, CATV, powderable ....lb. .70 1.15
wire and cable thermoplastic high-voltage, natural color, same basis ....lb. .80 .90
wire and cable, XLPE low voltage, 14% carbon black, same basis ....lb. .68 .73
wire and cable jacketing, black ....lb. .80 .81
Polymyxin sulfate, USP, bulk, 50-billion units min. ....million units .52 -
Polyoxyethylene sorbitan monostearate, dms., 20,000-lb. lots, works ....lb. .73 -
Polyoxyethylene sorbitan tristearate, dms., 20,000-lb. lots, works ....lb. .73 -
Polypropylene resin, homopolymer, g.p., nat., t.l., frt. alld. ....lb. .45 .48
copolymer, med. impact, nat., same basis ....lb. .50 .56
high impact, same basis ....lb. .53 .60
Polystyrene resin, cryst., nat., hopper cars, frt. alld. ....lb. .47 -
impact, nat., hopper cars, same basis ....lb. .48 .50
high heat, high impact, nat., hopper cars, same basis ....lb. .49 .52
expandable beads (EPS), pkging grade, 1,000-lb. lots ....lb. .69 -
modified, same basis ....lb. .71 .73
Polyvinyl alcohol, fully hydrolyzed, medium viscosity, bgs., t.l., divd. ....lb. 1.00 1.05
partially hydrolyzed, medium viscosity, bgs., t.l., divd. ....lb. 1.05 -
Polyvinyl chloride resin, g.p., homopolymer dispersion, bgs., t.l., divd. ....lb. .50 -
g.p. suspension, bulk, same basis ....lb. .38 -
pipe grade, bulk, same basis ....lb. .37 -
film grade, bulk, same basis ....lb. .37 .47
Polyvinyl chloride, g.p. copolymer dispersion, same basis ....lb. .58 .61
g.p. copolymer suspension, same basis ....lb. .46 .49
Poppyseed, Dutch, bgs. ....lb. .59 -
Turkey, bgs. ....lb. .53 -
Potash agricultural (see Potassium muriate).
Potash, caustic, liq., 45% basis, tanks, works ....100 lbs. 13.00 -
West Coast, 50% basis, tanks, ex terminal ....100 lbs. 18.06 -
reg. flake, 88-92%, 400-lb. dms., c.l., works ....100 lbs. 42.35 -
Potassium acetate, NF, gran., dms., t.l. works E. ....lb. .90 1.31
Potassium bicarbonate, tech., gran., bgs., c.l., works ....lb. .31½ -
Potassium bicarbonate, USP, gran., dms., t.l. ....lb. .72 -

Potassium bichromate, gran., 400-lb. dms., c.l., t.l., works ....lb. .48 -
Potassium bifluoride, tech., dms., t.l., works, frt. equald. ....lb. .45 .49
Potassium bitartrate, NF, gran., powd., bgs. ....lb. .90 1.20
Potassium borohydride, powd. dms., 100-1,000 lbs., works ....lb. 18.00 20.00
Potassium bromate, gran., powd., 200-lb. dms., c.l., f.o.b. works ....lb. 1.06 -
Potassium bromide, NF, gran., dms., c.l. f.o.b. works ....lb. 1.12 -
Potassium carbonate, liq., 47% K_2CO_3, tanks, t.w., works ....100 lbs. 14.60 -
dms., c.l., t.l., works ....100 lbs. 20.65 -
calcined, 99-100% K_2CO_3, hopper cars or trucks, works ....100 lbs. 32.50 -
bgs., c.l., t.l., works ....100 lbs. 35.20 -
drums ....100 lbs. 36.40 -
Potassium carbonate, gran., purif., 400-lb. dms., 5-dm. lots ....lb. .40 .46
Potassium chlorate, cryst., dms., c.l., works ....lb. .14½ -
powd., dms., c.l., works ....lb. .30 -
purif., gran., 325-lb. dms., f.o.b. shipping point ....lb. .40 -
Potassium chloride, chemical grade, 99.95% KCl, bulk, c.l., f.o.b. works ....ton 105.00 -
USP cryst. dms. ....lb. 1.12 -
USP gran., dms. ....lb. .67 -
USP powd., dms. ....lb. .67 -
Potassium chloride, agricultural (see Potassium muriate).
Potassium chromate, purif., cryst., dms., works ....lb. .57 -
Potassium citrate, NF, gran., 200-lb. dms., frt. alld. ....lb. .93½ -
Potassium cyanide, dms., 20,000-lb. lots or more, f.o.b. works ....lb. 1.32 -
Potassium dichromate (see Potassium bichromate).
Potassium fluoborate, tech., dms., c.l., t.l., works, frt. equald. ....lb. 1.40 1.42
Potassium fluoride, anhyd., dms., c.l., t.l. ....lb. 1.68 -
Potassium gluconate, dms., t.l., f.o.b. works ....lb. 1.45 -
Price W. of Denver 4c. per lb. higher.
Potassium guaiacolsulfonate, 500-lb. dms., 600 lbs. or more frt. equald. ....lb. 2.10 -
Potassium hydroxide, tech. (see Potash, caustic).
Potassium hydroxide, USP, pellets, 100-lb. dms., c.l., t.l., works, frt. equald. ....lb. 1.31 1.33
Potassium iodide, USP, gran., cryst., dms., 1,000-lb. lots divd. ....lb. 10.72 12.39
ACS grade truckload ....lb. 11.32 13.55
Potassium-magnesium sulfate, std., bags, works ....ton 59.00 -
basis 40% K_2SO_4 and 55% $MgSO_4$, bulk, works ....ton 67.00 -
Potassium metabisulfite, gran., dms., c.l. ....lb. .44 -
Potassium muriate, 60-62.4% min. K_2O, std., bulk, c.l., frt. equald., f.o.b. Sask., Canada ....ton 44.00 45.00
soluble, fine std., f.o.b. Sask. ....ton 47.00 -
coarse, f.o.b. Sask. ....ton 49.00 50.00
gran., f.o.b. Sask. ....ton 50.50 51.50
Potassium nitrate, fert. grade, std., 50-ton c.l., divd. SE. ....ton 267.00 274.00
prilled ....ton 277.00 284.00
tech., gran., bgs., c.l., min. 50 tons, divd. ....ton 470.00 -
Potassium oxalate, neutral, tech., fine gran., powd., 300-lb. dm., frt. equald. ....lb. 2.54 -
Potassium pentaborate, gran., bgs., c.l., works ....lb. 1.01 -
dms., same basis ....lb. 1.06 -
Potassium pentaborate powder 15c. per lb. higher.
Potassium perchlorate, dms. c.l., works ....lb. .76 -
Potassium permanganate, free flowing, bulk, hopper trucks, works ....lb. 1.09 -
50-kg. dms., same basis ....lb. 1.20 -
150-kg. dms., same basis ....lb. 1.17 -
Potassium permanganate, USP, 50-lb. kgs., works, c.l., t.l. ....lb. 1.38 -
Potassium persulfate, 225-lb. dms., 24,000 lbs. or more, f.o.b. plant ....cwt. 78.80 -
c/l same basis ....cwt. 72.50 -
Potassium pyrophosphate tetrabasic, bgs., c.l., t.l., works, E., frt. equald. ....100 lbs. 43.75 47.25
bulk, same basis ....100 lbs. 46.00 49.50
Potassium salicylate, USP, gran., 200-lb. dms., 2,000 lbs. or more, works ....lb. 1.52 -
USP, powd., 300-lb. dms., 2,000 lbs. or more, same basis ....lb. 1.42 -
Potassium silicate, soln., 29.8-30.2 Be., 2.5 ratio, t.c., t.t., tanks, works ....100 lbs. 18.90 -
dms., c.l., t.l., works ....100 lbs. 25.90 -
Potassium silicate, 40-40.5 Be., 2.1 ratio, t.c., t.t., works ....100 lbs. 25.05 -
40-40.5 Be., 2.1 ratio, dms., c.l., t.l., works ....100 lbs. 32.05 -
Potassium silicate, electronics grade, 30-30.4 Be., 2.1-2.2 ratio, t.c., t.t., works ....100 lbs. 28.10 -
dms., c.l., t.l., works ....100 lbs. 33.10 -
solid or glass, 2.15 ratio, dms., c.l., t.l., works ....100 lbs. 83.30 -
solid or glass, 2.5 ratio, dms. c.l., t.l. works ....lb. 45.65 -
"Ratio" indicates percentage by weight of SiO_2 divided by percentage by weight of K_2O.
Potassium silicofluoride, bgs., c.l., t.l., frt. equald. ....lb. .11½ .15
Potassium-sodium tartrate, NF, gran. or powd., dms. ....lb. .80 1.20
Potassium sorbate, t.l. dms. divd. ....lb. 2.50 3.10
Potassium stannate, dms., frt. alld. ....lb. N.A. -
Potassium sulfate, agricultural grade, min. 50% K_2O std., bulk, c.l., f.o.b. works ....ton 150.00 160.00
Potassium sulfate, gran., purif. 400-lb. dm. ....lb. .86 -

Potassium tetraborate, gran., bgs., c.l. works ....lb. 1.10 -
dms., same basis ....lb. 1.15 -
Potassium tetraborate powder 15c. per ton higher
Potassium thiocyanate, USP, cryst., 225-lb. dms., 5-dm. lots ....lb. 4.01 -
tech., cryst., dms., t.l. ....lb. .92 -
Potassium titanate, dms., t.l., works ....lb. .71½ -
Potassium-titanium fluoride, tech., dms., t.l., works, frt. equald. ....lb. 1.24 -
Potassium-zirconium fluoride, tech., dms., t.l., works, frt. equald. ....lb. .78 -
Prednisone USP, dms., 5 kilos or more ....gram 1.03 -
Prednisolone acetate, USP, dms., 5 kilos or more ....gram 1.12 -
Prednisolone, anhyd., USP, dms., 5 kilos or more ....gram 1.12 -
Procaine hydrochloride, USP, antibiotic grade, dms., 2,000-lb. lots, frt. alld. ....lb. 4.95 -
Procaine hydrochloride, USP, ampule grade, dms., 1,000-lb. lots, frt. alld. ....lb. 4.95 -
Propionaldehyde, tanks, f.o.b. ....lb. .39½ -
Propionic acid, syn., pure, tanks, divd. E. ....lb. .33 -
n-Propyl acetate, tanks, divd. ....lb. .39½ -
n-Propyl alcohol, tanks, divd. ....lb. .42 -
n-Propyl gallate dms., 100 to 2,000 lots, divd. ....lb. 11.00 -
n-Propyl-p-hydroxybenzoate, USP, 500 kilos ....kilo 10.80 -
tech., 500 kilos, f.o.b. works ....kilo 10.36 -
Propyl paraben (see n-Propyl-p-hydroxybenzoate)
Propyl thiouracil, dms., 50-kilo lots or more ....kilo 65.00 -
n-Propylamine, dms., c.l., divd. ....lb. .76 -
Propylene, polymer grade, f.o.b. Tex. and La. Gulf Coast points ....lb. .17½ -
chemical grade same basis ....lb. .16½ -
Propylene glycol, indust., tanks, f.o.b. ....lb. .40 -
USP, tanks, f.o.b. E. ....lb. .43 -
Propylene glycol monomethyl ether, tanks, divd. E. ....lb. .40 -
Propylene oxide, tanks, f.o.b. works, frt. equald. ....lb. .47½ -
Psyllium seed, USP powd bgs. ....lb. 1.50 -
Pumice, dom., fine, 4F-0, bgs., ton lots ....ton 270.00 -
medium, 0½-1½, bgs., ton lots ....ton 300.00 -
coarse, 2-extra coarse, bgs., ton lots ....ton 300.00 -
Pumice, imp., Italian, fines, bgs., ton lots, f.o.b. East Coast ....ton 280.00 -
medium, bgs., ton lots, f.o.b. East Coast ....ton 360.00 -
coarse, bgs., ton lots f.o.b. East Coast ....ton 300.00 -
Pyrazolone red (red 38), dms., works ....lb. 5.95 -
Pyrethrum flowers, fine grd. 0.9% pyrethrins, ton lots, frt. ald. ....lb. 1.31 -
Pyrethrum, purif., 20% pyrethrins, dms., works ....lb. 37.50 -
Pyridine, refd., 2-deg., c.l., works divd. ....kilo 5.90 -
tanks ....kilo 5.70 -
Pyridoxine hydrochloride, USP, 100 kilos or more, divd. ....kilo 38.00 -
Pyrites, Canadian 48-50% S. mines ....long ton 4.50 -
Pyrogallic acid (see Pyrogallol)
Pyrogallol, 100-lb. dms., 1,000-lb. lots, divd. ....lb. 13.70 -

Q

Quassia chips ....lb. .67 -
Quinacridone maroon, dms., frt. alld. ....lb. 20.75 -
red, dms., frt. alld. ....lb. 17.75 -
scarlet, dms., frt. alld. ....lb. 21.75 -
violet, dms., frt. alld. ....lb. 17.75 -
Quince seed, bgs. ....lb. 2.00 -
Quinidine sulfate, USP, 1,000-oz. dms., 2,000 oz. or more ....oz. 4.20 -
Quinine hydrochloride, NF, 1,000-oz. dms., 2,000 oz. or more ....oz. 2.45 -
Quinine sulfate, USP XVIII, 1,000-oz. dms., 2,000 oz. or more ....oz. 2.30 -
Quinoline, dms., t.l., frt. equald. ....lb. 1.49 -
tanks, same basis ....lb. 1.43 -

R

R salt tech., 304 molecular wt. ....lb. 2.12 -
Racemethionine, USP, 50-250 kilos ....kilo 6.80 -
250-500 kilos ....kilo 6.60 -
500 or more kilos ....kilo 6.50 -
feed grade, 99% min., c.l., t.l. ....lb. 1.07 -
Rapeseed oil, dms. ....lb. .55 -
Rauwolfia serpentina root, powd. lbs. ....lb. 22.00 -
Red carmine, No. 40 (see Carmine No. 40)
Red precipitate, (see Mercuric oxide, red).
Reserpine, USP, cryst., bots. ....gram 3.95 -
Resorcinol tech., bgs., t.l., works ....lb. 3.85 -
Resorcinol, USP, cryst., dms. 60 lbs. or more, works ....lb. 9.35 -
powd., dms., same basis ....lb. 9.35 -
Resorcinol monoacetate, dms., 1,000 lbs. or more ....lb. 1.99 -
Rhodamine red toner, molybdated, PMA, dms., works ....lb. 11.90 -
tungstated, PTMA, dms., f.o.b. works ....lb. 16.03 -
Rhodinol, 25-lb. cns. ....lb. 15.00 -
syn., dms. ....lb. 8.00 -
Rhubarb root, India, whole, bgs. ....lb. .61 -
powd., bgs. ....lb. .72 -
Riboflavin, feed grade, 25 kilos, divd. ....kilo 54.50 -
Riboflavin, USP, 25 kilos, divd. ....kilo 76.00 -
Riboflavin 5-phosphate-sodium, 25-kilo lots ....kilo 150.00 -

Rice bran oil, refined dms. t.l. ....lb. 1.25 -
Richinoleic acid (see Castor oil acids, split).
Rochelle salt (see Potassium-sodium tartrate).
Roofing pitch (see Coaltar pitch, roofing.)
Rose oil, nat., NF, Bulgarian, otto, bots. ....kilo. 5,700.00 -
Turkish, otto, bots. ....kilo. 6,500.00 7,500.00
Rosemary oil, NF, Spanish, dms. ....kilo 9.00 11.00
Tunisian, dms. ....kilo 15.00 17.50
Rutenone rash, 30-45%, 100-lb. dms. works ....unit-lb. .21 .23

S

Saccharin NF, gran., soluble, dms. 1,000-lb. lots, frt. alld. ....lb. 2.50 2.75
Saccharin NF, powd., soluble, dms., less than 20,000-lb. lots, frt. alld. ....lb. 3.76 -
Safflower oil, non-break, tanks, N.Y. ....lb. .55 -
Safrole dms., N.Y., divd. ....lb. .75 .78
Sage leaves, Dalmatian, No. 1, bgs. ....lb. 1.95 -
Albanian, bgs. ....lb. 1.55 -
Turkish ....lb. 1.25 1.30
Sage oil, Clary, French, bots. ....kilo 165.00 180.00
Dalmatian, cns. ....lb. 14.50 -
Spanish, cns. ....kilo 19.00 21.00
Salicylaldehyde, tanks, f.o.b. ....lb. 3.60 -
Salicylamide, NF, gran., powd., dms., 2,000-lb. lots, one ship. ....lb. 1.07 1.10
Salicylic acid, tech., dms., c.l., t.l., works ....lb. 1.23 1.41
USP, cryst., dms., 1,000 lbs. or more ....lb. 1.33 1.63
USP, powd., dms., 1,000 lbs. or more ....lb. 1.68 -
Salol (see Phenylsalicylate).
Salt, evaporated, common, 80-lb. bgs., c.l., t.l., North, works ....80 lbs. 4.02 -
bulk, same basis ....ton 60.00 61.20
chemical grade, same basis ....80 lbs. 4.30 -
Salt, rock, medium, coarse, same basis ....80 lbs. 2.70 -
bulk, same basis ....ton 18.00 25.00
Saltcake, bulk, c.l., works ....ton 65.00 98.00
Na_2SO_4 basis, f.o.b. works E ....ton 90.00 99.00
Sandalwood oil, E. Indian ....kilo 155.00 -
Indonesia ....kilo 102.00 -
Santonin, tech., tanks, works, frt. equald. ....lb. .50 -
Schaeffer's salt, paste, dms., 100% basis, works ....lb. 2.59 -
Scopolamine hydrobromide, USP, 100-oz. lots bots. ....oz. 36.00 46.50
Selenium, com'l. CP, bgs., c.l. works ....lb. 1.95 -
purif., bgs., c.l., works ....lb. 1.94 -
Selenium dioxide, dms., 5,000-lb. lots ....lb. .30½ -
Selenium, powd., 99.99% Se, dms., divd. ....lb. 13.00 -
cont., 99.9% Se, same basis ....lb. 10.00 15.00
Senna leaves, Alexandria, whole and siftings ....lb. .75 .80
Tinnevelly, No. 1, bls. ....lb. .70 .71
powd., bots., bgs. ....lb. .90 1.10
Sesame seed, USP, dms., t.l. ....lb. 1.00 1.20
Sesame seed, Central American, hulled, bgs. ....lb. .55 .56
Shellac, orange, bleached, paper bags, t.l., works ....lb. .19½ .28½
dewaxed, ...lb. .18¼ .23¼
Silica, amorph., dry-grd., bgs., c.l., works, 99% ....ton 31.00 32.50
98% 200 mesh ....ton 32.00 33.50
98% 325 mesh ....ton 34.50 35.50
99% 325 mesh ....ton 37.00 -
99% 400 mesh ....ton 51.50 54.50
Silica, grd., bgs., c.l., works, 99.9%, 15 microns, ml-crosed ....ton 72.00 75.50
99% under 15 microns, ml-crosed ....ton 79.50 82.50
99% under 10 microns, ml-crosed ....ton 104.00 105.00
Silica, hydrogel ....lb. 37.00 -
Silica gel ....lb. 34.75 -
Silicon tetrachloride, tech., dms., c.l., t.l. ....lb. .50 -
tanks ....lb. .36 -
Silver nitrate, ingots, ca., Troy ....oz. 5.765 -
Silver cyanide, ...Troy oz. 4.588 -
Silver nitrate, ACS, 58.2 Troy oz. AG/ 100-oz. ....oz. 3.437 -
Soapstone, crushed, bgs. ....ton 1.49 -
Soda ash, dense, 58%, 100-lb. paper bgs. ....100 lbs. 1.36 1.85
bulk, c.l., works, f.o.b. ....ton 120.00 -
light, 58%, 100-lb. paper bgs., c.l., works ....ton 83.00 -
bulk, c.l., same basis ....ton 160.00 -
Soda, caustic, liq., 50%, sellers tanks, f.o.b. works ....ton 123.00 -
73%, same basis ....ton 175.00 195.00
liq., 76%, 100-dms., c.l. ....ton 205.00 225.00
solid, 76%, 700-lb. drums, c.l. ....ton 500.00 570.00
gran., 76%, 450-lb. drums, c.l. works ....ton 520.00 570.00
beads, 76%, 400-lb. dms., c.l., works ....ton 620.00 -
Prices for liq. caustic type, $15 ton higher. Prices in West 70c. higher for solid, and $20-$30 ton higher for gran. and flake.
Sodium acetate, conc., bgs., c.l., works ....lb. 3.35 3.85
anhyd., bgs., c.l., t.l. ....lb. .54 -
Sodium acetate, USP, 50%, gran. ....lb. .57 -
Sodium alginate, same basis ....lb. 6.00 6.75
Sodium aluminate, dms. 300 lbs. or more, c.l., f.o.b. ....lb. 4.73 -
Sodium antimonate, USP, dms., t.l. ....lb. 1.48 1.50
Sodium azide, tech., bgs. ....lb. 9.30 10.60
Sodium benzoate, USP, 50-lb. bgs. ....lb. .70½ -
Sodium bicarbonate, c.l., works ....lb. .83½ -
bulk, same basis ....lb. .56½ -
Sodium bicarbonate, USP, dms., c.l., works ....lb. .69 -
sodium, same basis ....lb. .62 -

Sodium bicarbonate, USP, powd., reg. grade, bgs., c.l., t.l., works, frt. equald. ....100 lbs. 17.05 -
coarse, same basis ....100 lbs. 18.05 -
fine, same basis ....100 lbs. 17.20 -
gran., same basis ....100 lbs. 17.85 -
gran., fine, same basis ....100 lbs. 17.60 -
Sodium bichromate, gran., bgs. c.l., t.l., works, frt. equald. ....lb. .57 -
Sodium bifluoride, 400-lb. dms., c.l., frt. equald. ....lb. .78 -
100-lb. bgs., c.l., same basis ....lb. .76 -
Sodium bisulfate, bulk, c.l., works ....ton 175.00 -
dms., c.l. ....100 lbs. 13.00 -
Sodium bisulfite, anhyd. bgs., c.l., works, East ....100 lbs. 26.50 -
works, West ....100 lbs. 32.00 -
Sodium bisulfite, soln., 38%, bulk, 100% basis, works, East ....100 lbs. 20.60 -
soln., 100%, bulk, works, West ....100 lbs. 20.00 -
photographic grade, 43% soln., works ....lb. 21.90 -
Sodium borate NF, gran., bgs., c.l., works ....lb. .51 -
powd., same basis ....lb. .52 -
Sodium borohydride, powd., dms., 1000-5000 lbs. works ....lb. 19.88 21.90
Sodium borohydride, stabilized water soln., 12% $NaBH_4$, 100% basis, 3000 gal. tankwagon, works ....lb. 17.45 -
Sodium bromide, 99%, gran., 400-lb. dms., f.o.b. works ....lb. 1.04 -
Sodium carbonate, decahydrate, bgs., c.l., t.l., works ....ton 284.00 -
Sodium carbonate, cryst. monohydrate (see Soda, ash)
Sodium carbonate, monohydrated, bgs., c.l., t.l., works ....ton 392.00 -
Sodium carboxymethyl cellulose (see CMC.)
Sodium chlorate, crystal, bulk, t.c., t.l., delivered, N.E. ....ton 330.00 -
delivered, S.E. ....ton 335.00 -
Sodium chlorate, cryst., 450-lb. dms., c.l., works E. ....lb. .27 -
Sodium chloride, tech. (see Salt.)
Sodium chloride, USP, gran., bgs. ....lb. .29 -
Sodium chlorite, tech., dms., c.l., works ....lb. 1.17 1.27
Sodium chromate, anhyd., dms., c.l., t.l., works ....lb. .67 -
Sodium chromate, tetrahydrate, bgs., c.l., t.l., works ....lb. .64 -
Sodium citrate, gran., anhyd., 200-lb. dms., frt. equald. ....lb. 1.95 -
Sodium citrate, USP, gran., dihydrate, 100-lb. bgs., t.l., f.o.b. shipping point ....lb. .74½ -
Sodium cyanate, dms. 1,000-lb. lots, works ....lb. .85 -
Sodium cyanide, briquettes or gran., 99% min., 200-lb. dms. min., divd. ....lb. .71 -
Sodium diacetate, anhyd., dms., c.l. ....lb. .68 -
Sodium diacetate, FCC, 50-lb. bgs., t.l., divd. E. of Rockies ....lb. .61 .67
Sodium diacetate, tech., 50-lb. dms., c.l., works ....lb. .52 -
Sodium erythorbate, powd., gran., t.l. or mixed t.l., f.o.b. shipping point ....lb. 2.60 2.65
Prices W. of Denver 2c. per pound higher.
Sodium ferrocyanide, bgs., t.l., works ....lb. .60 -
Sodium fluoborate, tech., gran., dms., c.l., works, frt. equald. ....lb. 1.77 -
Sodium fluoride, white, 97%, 400-lb. dms., c.l. works, frt. equald. ....lb. .6345 -
100-lb. bgs., c.l., same basis ....lb. .60 -
USP powd., 200-lb. dms., t.l., f.o.b. shipping point ....lb. 4.69 -
Sodium formate, bgs., c.l., works ....lb. .20 -
Sodium gluconate, tech., 50-lb. bgs., 2,500 lbs. or more frt. alld. ....lb. .60 -
Sodium hydride, oil dispersion, 60% NaH, 167-lb. dms., 10 dms. ....lb. 1.86 -
Sodium hydrosulfide. (see Sodium sulfhydrate.)
Sodium hydrosulfite, 50-lb. dms., c.l., f.o.b. shipping point frt. equald. ....lb. .84 -
Sodium hydroxide, USP, pellets, 100-lb. dms., c.l., t.l., works, frt. equald. ....lb. .98 1.06
Sodium hydroxide, tech (see Soda, caustic.)
Sodium hypophosphite, gran., 100-lb. dms. f.o.b. works ....lb. 1.425 1.50
110-lb. dms. ....lb. 1.47 1.52
Sodium hyposulfite (see Sodium thiosulfate).
Sodium iodide, USP, cryst., 300- to 500-lb. lots, dms. frt. equald. ....lb. 14.72 -
Sodium lauryl sulfate, 30%, tanks, f.o.b. works ....lb. .29 .32
Sodium lignin sulfonate, bgs., c.l., works ....lb. 25.50 -
Sodium metabisulfite (see Sodium bisulfite).
Sodium metaborate, octahydrate, gran., bgs., c.l., works ....lb. .38 -
tetrahydrate, gran., bgs., c.l., works ....lb. .49 -
Sodium, metallic, 12-lb. bricks, dms., c.l., works ....lb. .93 -
fused, dms. 24,000-lb. lots or more, works ....lb. .87 -
tanks, works ....lb. .70 .80
Sodium metaphosphate, tech. bgs., c.l., f.o.b. shipping pt. frt. equald. ....100 lbs. 61.50 -
food grade, bgs. c.l. f.o.b. frt. equald. ....100 lbs. 68.25 -
Sodium metasilicate, anhyd., bgs., c.l., works ....100 lbs. 27.25 -
bulk, c.l. works ....100 lbs. 25.30 -
pentahydrate, gran., bgs., c.l., works, frt. equald. ....100 lbs. 19.95 -
bulk, c.l. works ....100 lbs. 17.20 -
Sodium monophosphate, anhyd., dms., t.l., works, 100 lbs and over ....lb. 4.67 -
cryst., dms., t.l., same basis ....lb. 4.12 -
Sodium naphthionate, dms., c.l., t.l., works ....lb. 2.00 -
Sodium Nitrate, USP, bgs., c.l., f.o.b., frt. equald. ....100 lbs. 34.50 -
Sodium nitrate, com., industrial, bgs., works ....ton 284.00 292.00
bulk, c.l., works ....ton 250.00 -
imp., com'l., 100-lb. bgs., c.l., Atl., or Gulf whse. ....ton 205.00 214.00
bulk, c.l., same basis ....ton 182.00 -
imp., agricultural, bulk, c.l., same basis ....ton 140.00 -
Sodium nitrite, USP, dms., c.l., works, frt. equald. ....100 lbs. 37.25 -

Sodium orthosilicate, tech., anhyd., bgs., c.l., works ....100 lbs. 34.50 -
Sodium orthosilicate, tech., hydrated, flake, dms., c.l., works ....100 lbs. 27.45 -
bgs., c.l., works ....100 lbs. 25.25 -
Sodium oxalate, 99%, bgs., t.l., works ....lb. .45 -
Sodium pentachlorophenate, beads c.l., 30,000-lb min. ....lb. .67 -
bgs. ....lb. .66 -
Sodium pentobarbital (see Pentobarbital-sodium).
Sodium perborate, tetrahydrate, tech., bgs., c.l., t.l., works ....lb. .32½ .38½
Sodium perchlorate, 225-lb. dms. 24,000 lbs. or more, f.o.b. plant ....lb. .53½ -
65-lb. bgs. same basis ....lb. .62 -
Sodium phenobarbital (see Phenobarbital-Sodium).
Sodium phenolsulfonate, powd., dms. ....lb. .76 -
Sodium phosphate, anhyd., dibasic tech., bgs., c.l., t.l., works, frt. equald. ....100 lbs. 54.60 -
food grade, same basis ....100 lbs. 57.60 -
Sodium phosphate, monobasic, tech., same basis ....100 lbs. 55.75 -
food grade, same basis ....100 lbs. 59.75 -
tribasic, tech., same basis ....100 lbs. 52.25 52.75
food grade, same basis ....100 lbs. 63.25 -
chlorinated, same basis ....100 lbs. 31.50 -
cryst., tech., same basis ....100 lbs. 30.50 -
cryst., food grade, same basis ....100 lbs. 35.50 -
USP, dried, powd., bgs., dms., works ....lb. .19 .20½
Sodium picramate, tech., paste, 200-lb. dms., dry basis, divd. ....lb. 6.50 -
Sodium propionate, dms., 2,000 lbs. or more, f.o.b. t.l. works ....lb. .54 -
Sodium pyrophosphate, acid, tech. bgs., c.l. works, frt. equald. ....100 lbs. 58.25 -
food grade, non-leavening, bgs., c.l., works, frt. equald. ....100 lbs. 61.25 -
Sodium pyrophosphate, tetrasodium, c.l., t.l., works ....lb. .3880 -
Sodium pyrophosphate, tetrabasic, anhyd., tech., bgs., c.l., t.l., works, frt. equald. ....100 lbs. 44.75 -
bulk, hopper cars, same basis ....100 lbs. 42.50 -
food grade, bgs., c.l., t.l., same basis ....100 lbs. 53.00 -
Sodium salicylate, USP, cryst., 200-lb. dms., 1,000-lb. lots or more ....lb. 3.00 -
USP, powd., 200-lb. dms., 1,000-lb. lots or more, same basis ....lb. 3.05 -
Sodium sesquicarbonate, bulk, c.l., t.l., works ....ton 170.00 -
bgs., c.l., t.l., works ....100 lbs. 198.00 -
Sodium silicate, solid or glass, 3.22-3.25 ratio, bulk, c.l., t.l., works ....100 lbs. 15.70 -
glass, bgs., c.l., t.l., works ....100 lbs. 27.75 -
1.95-2.00 ratio, bulk, c.l., t.l., works ....100 lbs. 20.30 -
bgs., c.l., t.l., works ....100 lbs. 22.15 -
soln., 37.6° sold, 3.22-3.25 ratio, bulk, c.l., t.l., frt. equald. ....100 lbs. 6.30 -
"Ratio" indicates percentage by weight of SiO_2 divided by percentage by weight of Na_2O.
Sodium silicofluoride, bgs., c.l., t.l., works, frt. equald. ....100 lbs. 17.95 19.75
Sodium stannate, dms. wks. frt. alld. E. ....lb. N.A. -
Sodium sulfanilate, dms., works ....lb. .22 -
Sodium sulfate, NF XII, powd., dms., 2,000-lb. lots ....lb. .23½ -
tech., detergent, rayon-grade, c.l., works, Gulf ....ton 90.00 98.00
Sodium sulfate, West, bulk, c.l., works, frt. equald. ....ton 90.00 101.00
bulk, c.l., East, same basis ....ton 113.00 114.00
Sodium sulfate, photo grade, 100-lb. bgs., c.l., works ....ton 47.00 53.00
Sodium sulfhydrate, flake, 70-72%, dms., c.l., works, frt. equald. ....ton 500.00 -
liq., 44-45%, tanks, works, frt. equald. ....ton 500.00 -
Sodium sulfide, flake, dms., c.l., works, E., frt. equald. ....ton 470.00 -
bgs., same basis ....ton 410.00 -
Sodium sulfide, fused, dms., c.l., works, E., frt. equald. ....ton 240.00 -
Sodium sulfite, anhyd., tech. 96-100% bgs., f.o.b. works ....100 lbs. 23.75 -
Sodium sulfocyanide CP (see Sodium thiocyanate).
Sodium tetraborate (see Borax).
Sodium tetrasulfide, liq. 34%, dms., c.l., works, frt. equald. ....ton 540.00 -
Sodium thiocyanate, purif., cryst., 250-lb. dms., 5 dms. or more, f.o.b. works ....lb. 3.26 -
tech., anhyd. dms., 2,000 lbs. or more, works ....lb. .97 -
Sodium thiosulfate, tech., photo grade, anhyd., 100-lb. bgs., c.l., t.l., works, frt. equald. ....100 lbs. 45.50 -
cryst. pentahydrate, c.l., t.l., same basis ....100 lbs. 28.50 -
Sodium titanate, dms., c.l., works ....lb. .14½ -
Sodium trichloroacetate, 98%, 50-lb. bgs., c.l., frt. alld. E. ....lb. .28 -
Sodium tripolyphosphate, tech., bgs., c.l., t.l. works, frt. equald. ....100 lbs. 39.75 -
bulk, hopper cars, same basis ....100 lbs. 37.50 -
food grade, bgs., c.l., t.l., same basis ....100 lbs. 48.50 -
Sodium tungstate, tech. high moly., dms., 10,800 lbs. or more, frt. alld. ....lb. 5.00 5.50
Folic grade dms., 10,800 lbs. or more, same basis ....lb. 8.00 -
Sodium-zirconium phosphate, purif., cryst., dms., works ....lb. .62 -
Sodium-formaldehyde sulfoxylate, dms., t.l., f.o.b. works ....lb. .91 -
Sodium-phenyl sulfate, dms., 1,000-lb. lots or more, works ....lb. .28 -
tech., dms., any quantity, works ....lb. .16 -
Solvent naphtha, petroleum, straight aromatic, b.r. 320°-350°F., 55° F.m.a.p., tanks:
New Jersey ....gal. 1.52 -
Houston ....gal. 1.41 -
Illinois ....gal. 1.54 -
Solvent naphtha, petroleum, straight aromatic, b.r. 360°F-410°F, 60°F.m.a.p., tanks:
New Jersey ....gal. 1.30 1.38
Houston ....gal. 1.20 -
Illinois ....gal. 1.80 1.86
Sorbic acid, t.l. dms., divd. ....lb. 2.50 3.10

CHEMICAL PRICES

WEEK ENDING NOV 7, 1986

Sorbitan monostearate, dms., c.l., t.l., 30,000 lb. min., f.o.b. works ....lb. .76 -
Sorbitan tristearate, c.l., t.l., 30,000 lb. min., f.o.b. works ....lb. .80 -
Sorbitol, USP, reg. 70% aqueous, dms., c.l., f.o.b. shipping point ....lb. .35 -
tanks, f.o.b. shipping point ....lb. .30 -
gran., dms., c.l. t.l., works ....lb. .70 .74
powd., dms., c.l., t.l., works ....lb. .68 .72
Soybean meal (See Oils, Fats & Waxes market report.)
Soybean oil (See Oils, Fats & Waxes market report.)
Soybean oil soldulated, soapstock, 95% acid, tanks, New York ....lb. .14 .15
Soybean oil, acid, dbl., dist., dms. ....lb. .48 .59
tanks ....lb. .43 .44
s.d., dms. ....lb. .47 .58
tanks ....lb. .38 .43
Spearmint leaves, imp., bls. ....lb. 2.50 2.70
Spearmint oil, Far West, native ....lb. 14.00 15.00
Midwest, native ....lb. 10.00 12.00
Far West, Scotch ....lb. 15.00 15.50
Midwest, Scotch ....lb. 14.50 15.25
Spruce oil, dms. ....lb. 8.00 -
St. John's bread, edible, bls. ....lb. .29 .30
Stannic chloride, anhyd., dms., works ....lb. N.A. -
Stannic oxide, dms., works ....lb. N.A. -
Stannous chloride, anhyd., dms. wks ....lb. N.A. -
Stannous fluoborate, liq., conc., dms., t.l., works, frt. equald. ....lb. 2.50 -
Stannous oxide, dms., works ....lb. N.A. -
Stannous sulfate, dms., works ....lb. N.A. -
Stearic acid, double pressed, bulk ....lb. .26 .39
single-pressed, bulk ....lb. .28 .375
triple-pressed, bulk ....lb. .32 .40
Stramonium leaves, bgs. ....lb. .15 .20
Streptomycin sulfate, USP, bulk ....kilo 47.00 -
Strontium carbonate, glass grd., bgs., t.l., works ....lb. .37¼ -
Strontium nitrate, 50-16 bgs., c.l., works ....lb. 51.50 -
Styrene monomer, 99.6% min., tc., t.l., f.o.b. works ....lb. .22 .27
Styrene-acrylonitrile resin, nat., bulk, f.o.b. plant ....lb. .77 -
cryst., bulk, same basis ....lb. .77 .81
clear, same basis ....lb. .77 .81
Styryl acetate, dms. ....lb. 2.35 -
Succinic acid, purif., cryst., dms., t.l., frt. alld. ....lb. 2.00 2.10
Succinic anhydride, dms., c.l., t.l., f.o.b. works ....lb. 1.71 -
Sucrose, refd., white, bgs., c.l., f.o.b. rely. E. ....100 lbs. 33.10 -
Sucrose acetate, isobutyrate, 90% dms., t.l., divd. ....lb. 1.18 -
tanks, divd. ....lb. 1.10 -
100% dms., t.l., divd. ....lb. 1.18 -
Sucrose octa-acetate, denaturing grade, 100-lb. dms., f.o.b. works ....lb. 12.50 13.50
Sulfabenzamide, dms., 500 kilos ....kilo 38.50 -
Sulfabenzamide-sodium, dms., 500 kilos ....kilo 25.00 -
Sulfacetamide, USP, dms., 500 kilos ....kilo 20.00 23.60
Sulfadiazine, USP, powd. dms., 500 kilos ....kilo 53.00 -
Sulfadiazine-sodium, USP, dms., 500 kilos ....kilo 40.70 -
Sulfamerazine, USP, microcrystals, dms. 500 kilos ....kilo 33.60 -
USP, powd., dms., 500 kilos ....kilo 32.00 -
Sulfamethazine-sodium, USP, powd. dms., 50 kilos ....kilo 13.00 -
Sulfamethazine, powder, dms., 500 kilos ....kilo 9.00 10.00
Sulfamic acid, cryst. bgs., c.l., t.l., works ....100 lbs. 38.00 41.00
Sulfanilic acid, gran., dms., c.l., t.l. ....lb. .38 -
Sulfanilamide, NF, reg. 1,000-lb. dms., works ....lb. 2.00 -
Sulfanilic acid, tech., bgs., t.l., f.o.b. works ....lb. .67½ -
Sulfaquinoxaline, veterinary, grade, dms. ....lb. 8.00 -
Sulfur, crude, bright, molten, dom., f.o.b. vessel, Gulf ports ....long-ton 150.00 -
f.o.b. t.c. rely ....long-ton 125.50 -
recovered, divd., Houston ....long-ton 125.50 -
ex terminal, Rotterdam ....long ton 135.00 -
f.o.b. tanks, Alberta, Canada, for US delivery ....long-ton 102.00 -
dark, ex-Tampa, Fla. ....long-ton 157.50 -
Sulfur, crude, 99.5% min. purity, coml. flour, 50-lb. bgs., c.l., mines basis ....100 lbs. 13.60 -
lump, same basis ....100 lbs. 13.60 -
Sulfur, refd., 99.5% min. purity, rolls 50-lb. bags, c.l. mines basis ....100 lbs. 17.60 -
flour, light, 50-lb. bgs., same basis ....100 lbs. 20.00 -
Sulfur, refd., sublimed, NF, 99.85% min. purity, 50-lb. bgs. c.l. mines basis ....100 lbs. 26.00 -
Sulfur, rubbermakers, 99.5% min. purity, coml., reg., 50-lb. bgs., c.l., mines basis ....100 lbs. 14.60 -
fine, 99% min. passing through 325 mesh, same basis ....100 lbs. 15.60 -
Sulfur dichloride, dms., c.l., works, frt. equald. ....lb. .24 -
tanks, same basis ....lb. .17¼ -
Sulfur dioxide, liq., bulk, t.c., t.l., f.o.b. works ....ton 230.00 -
Sulfur monochloride, dms. c.l. works, frt. equald. ....lb. .22½ -
tanks, same basis ....lb. .18¼ -

Sep 1986 C&E

CHEMICAL PRICES

WEEK ENDING NOV 7, 1986

Sulfuric acid, virgin 100% tanks, works,			
East Coast	ton	71.75	95.90
Gulf Coast	ton	75.00	86.40
Midwest	ton	80.25	–
Southeast	ton	68.15	–
West Coast	ton	85.00	–

NOTE: For prices on 60 and 66 Be., multiply by .7767 and .9319, respectively. For price of 20% fuming oleum, as is, add $3-$4 to above prices and multiply by 1.045.

Sulfuric acid, smelter, 100% tanks, works,			
Gulf Coast	ton	48.00	52.00
New Mexico	ton	20.00	25.00
Southeast	ton	63.15	–
93%, tanks, divd., Northwest	ton	60.00	65.00
Sunflowerseed oil, crude, f.o.b. Minneapolis	lb.	.16	.16½
Superphosphate, triple, 46% or more, a.p.a., run-of-pile, bulk, c.l., Fla.	unit-ton	2.75	3.05
bulk, gran., c.l., Fla.	ton	160.00	165.00

T

Talc, dom., grd. New York bgs., c.l., works	ton	84.00	–
99.5%, 325 mesh, bgs., c.l., works	ton	84.00	90.00
Talc, dom., 99.5%, 400 mesh, micronized, bgs., c.l., works	ton	187.00	236.00
625 mesh, micronized, bgs., c.l., works	ton	200.00	–
dom., ord., Calif. grd., bgs., c.l., works	ton	90.00	–
ord., Vermont, off-color grd., bgs., c.l., works	ton	136.00	–
Imp., Canadian, grd., bgs., c.l., works	ton	70.00	84.00
Tall oil, crude, Southeast, tanks, works, frt. equald.	ton	90.00	100.00
Tall oil, refd., acid, same basis	lb.	.31	–
dist., tanks, same basis	lb.	.19	.23
Tall oil acids, 2% or more rosin, tanks, works, frt. equald.	lb.	.20½	.23½
less than 2% rosin acid	lb.	.22	.27
Tallow (see Oils, Fats & Waxes market report.)			
Tallow, fatty acids, tech., non-ret. dms., c.l., divd.	lb.	.37	.40
tanks, divd.	lb.	.29	.45
hydrogenated, tech., flake, bgs., c.l., divd.	lb.	.37	.33
tanks, divd.	lb.	.35	.42
Tangerine oil, Fla., dms. f.o.b.	lb.	8.50	9.50
Italian, dms.	kilo	52.90	–
Tankage, animal feeding, 9-11%, NH_3, New York, bulk	unit-ton	5.50	–
Tankage, fert. grade (see Nitrogenous process tankage).			
Tannic acid, NF, fluffy, bbls., 1,000-lb. lots	lb.	6.09	–
tech., powd., dms.	lb.	4.62	–
Tar acid oil, 15-18% t.l., dms, f.o.b works	gal.	1.40	–
25-28%, t.l., dms., f.o.b. works	gal.	1.59	–
50-53%, t.l., dms., f.o.b. works	gal.	1.87	–
Tartaric acid, NF, bgs.	lb.	1.20	1.50
Tellurium, metallurgical, f.o.b. works	lb.	12.00	–
Terpin hydrate, NF, imp., cryst., powd., 38 kilo drums, f.o.b. ship. pt., frt. equald.	lb.	1.35	–
Terpineol	lb.	1.10	1.50
Terpinyl acetate, extra, dms	lb.	2.40	–
prime, dms.	lb.	1.35	2.05
Terpinyl propionate, dms.	lb.	4.50	–
Tetrachloroethylene, tech. (see Perchloroethylene).			
Tetrachloroethylene, USP, dms., c.l., t.l., works	lb.	.30¼	–
Tetraethyl orthosilicate, bulk, f.o.b. works	lb.	1.53	1.66
Tetraethylene glycol, tanks, frt. alld.	lb.	.67	–
Tetraethylene glycol diacrylate, t.l. dms., f.o.b. works	lb.	1.50	–
Tetraethylenepentamine, tanks, same basis	lb.	1.70	1.75
Tetraethylthiuram disulfide, tech., flake, dms., t.l., frt. alld.	lb.	.68	2.07
Tetrahydrofuran dms., c.l., t.l., f.o.b. works	lb.	1.02	–
tanks, same basis	lb.	.96	–
Tetrahydrofurfuryl alcohol tanks, f.o.b. Memphis, Tenn.	lb.	.90	–
Tetrahydrolinalool, syn., dms.	lb.	7.20	–
Tetrahydrophthalic anhydride dms., c.l., t.l. f.o.b. works	lb.	.65	–
Tetrapotassium phosphate (see Potassium phosphate, tetrabasic).			
Tetrasodium pyrophosphate (see Sodium pyrophosphate, tetrabasic.)			
Thallium metal, divd.	lb.	35.00	–
Thallium sulfate, 99%, bots., divd.	kilo	140.00	–
Theobromine, bulk f.o.b. works	lb.	4.00	4.50
Theophylline, USP, anhyd. 50-kilo dms., 10,000-kilo lots	kilo	12.00	12.95
Thiamine hydrochloride, USP 100-kilo dms., divd.	kilo	33.00	–
Thiamine mononitrate, USP, 100-kilo., dms., divd	kilo	33.00	–
Thiodiphenol, 98%, dms., f.o.b. works	lb.	3.35	–
Thioflavin green toners, molybdated, PMA, dms.	lb.	5.40	6.05
tungstated, PTA, dms.	lb.	5.60	5.85
Thioglycolic acid, refd., dms., ton lots 100% acid basis	lb.	2.07	–
Thioindigoid maroon, dms., frt. alld.	lb.	7.50	–
reds, dms., frt. alld.	lb.	5.88	6.12
Thionyl chloride, high-purity, 99.6%, 24,000-lb. min. t.l., dms. frt. equald.	lb.	.55	–
Thorium nitrate, purif., dms., 100-lb. lots or more, works	lb.	2.75	–
dl-Threonine, dms 10 kilos wks.	kilo.	128.00	–
Thyme leaves, French, bgs.	lb.	1.45	–
Spanish, bgs.	lb.	.75	–
Thyme oil, NF, red, dms.	kilo	20.00	–
NF, white, dms.	kilo	22.00	–
Thymol, NF	lb.	3.75	6.15
Thymol iodide, dms., 100-lbs. f.o.b. works	lb.	52.30	56.20
Tin metal (NY composite)	lb.	N.A.	–
Titanium dioxide, anatase, bgs., 20-ton lots, frt. alld.	lb.	.77	.79
slurry shipments, 50-ton lots, dry basis, frt. alld.	lb.	.78	–
Titanium dioxide, rutile, reg., bgs., 20-ton lots, frt. alld.	lb.	.81	.84
slurry shipments, 50 ton lots, dry basis, frt. alld.	lb.	.84	–
Non-chalking rutile material costs 1c. per pound more.			
Titanium hydride powd. electronics grade, dms.	lb.	26.50	–
Titanium tetrachloride, tech., bulk, c.l., f.o.b. works	lb.	.30	.35
200-gal cylinders c.l., same basis	lb.	.50	–
Titanium sponge, 99.3%, fiber drums, less than 5,000 lbs. f.o.b. wks.	lb.	4.85	–
Tobias acid, 2,000 lbs. or more	lb.	2.45	–
d-a-Tocopherols, 67%, dms.	kilo	50.08	–
d-a-Tocopheryl acetate, 81% conc., dms.	kilo	57.49	–
d-a-Tocopheryl acid succinate, cryst., dms.	kilo	78.44	–
dl-a-Tocopherol, dms.	kilo.	27.40	–
dl-a-Tocopheryl acetate, USP 50-kilo dm. 1000 kilo min.	kilo.	16.00	16.50
50% dry powd., 50-kilo dm.	kilo	17.00	–
Tolu balsam, cns.	lb.	7.60	8.68
Toluene, petroleum, ind. or nitration, tanks			
Atlanta, Ga., divd.	gal.	.70	–
Bayonne, N.J., divd.	gal.	.70	–
Baytown, Tex., f.o.b.	gal.	.70	–
Chicago, Ill. divd.	gal.	.70	–
Clairton, Pa., f.o.b.	gal.	.70	–
Deer Park, Tex., f.o.b.	gal.	.70	–
Ft. Wayne, Ind., divd.	gal.	.70	–
Gulf Coast, spot, barges	gal.	.65	–
Houston, Tex., divd.	gal.	.70	–
New Jersey Metro, divd	gal.	.70	–
Philadelphia, Pa., divd.	gal.	.70	–
Providence, R.I., divd.	gal.	.70	–
Toluene di-isocyanate (mixed isomers), 80%, 2,4- and 20% 2,6-isomers, jumbo tankcars, divd.	lb.	1.01	–
p-Toluenesulfonamide, powd., dms., t.l., works	lb.	3.55	–
m-Toluidine, tech., bulk	lb.	3.10	–
o-Toluidine, tech., liq., dms. c.l.	lb.	.72	.75
bulk, same basis	lb.	.60	.64
p-Toluidine, tech. cast solid, dms., cl., works	lb.	1.80	1.85
Liq., tanks, same basis	lb.	1.70	–
flake, same basis	lb.	1.85	–
Toluidines, mixed, o-m-p, tech., liquid, c.l. f.o.b. works	lb.	1.03	–
bulk same basis	lb.	.95	–
Tolyltriazole, dms., 1,000-lb. lots, f.o.b. Cincinnati, Ohio	lb.	2.90	–
Tonka beans, Angostura, prime, 1,000-lb. lots	lb.	6.50	–
Toxaphene, dms., c.l., t.l., works	lb.	.38	–
Tragacanth gum, No. 1, ribbons, cns.	lb.	38.00	40.00
flaked powder	lb.	12.50	15.00
Triacetin tanks, divd. E	lb.	.75	–
Tributyl citrate, t.l., drums, f.o.b., works	lb.	1.70	–
Tributyl phosphate, tanks, works	lb.	1.65	1.77
Tributylamine, dms., c.l., divd.	lb.	1.39	–
tanks, same basis	lb.	1.33	–
Trichloroacetic acid, tech., 300-lb. dms., c.l., f.o.b., works	lb.	.94	–
USP, 100-lb. dms., frt. equald.	lb.	.99½	–
1,2,4-Trichlorobenzene, pure, tanks, divd.	lb.	.61½	–
1,1,1-Trichloroethane, tanks, consumers, divd.	lb.	.40½	–
1,1,2-Trichloroethane, tanks, f.o.b. works	lb.	.42	–
Trichloroethylene, tanks, divd.	lb.	.38½	–
Trichloroisocyanuric acid, dms.	lb.	1.25	–
Trichlorophenoxyacetic acid (see 2,4,5-T).			
Tricholine citrate, 65%, soln., non-ret. dms., 1,500-lb. lots, divd.	lb.	1.35	–
Tricresyl phosphate, tanks, f.o.b. works	lb.	1.60	1.78
Tridecyl alcohol, mixed isomers, tanks, divd.	lb.	.57	–
Triethanolamine, 85%, tanks, divd. E	lb.	.45	.48
99%, tanks, same basis	lb.	.45	.48
Triethanolamine lauryl sulfate, tanks, f.o.b. works	lb.	.27¼	.27½
Triethylamine, dms., c.l., divd.	lb.	1.33	–
tanks, same basis	lb.	1.20	–
Triethyl citrate, t.l., drums, f.o.b., works	lb.	1.82	–
Triethyl phosphate, tanks, divd.	lb.	1.15	–
Triethylene glycol, tanks, f.o.b. Gulf	lb.	.47	–
Triethylene glycol dipelargonate, tanks f.o.b. works	lb.	.29½	–
40-60% tanks, 100% basis, frt. equald.	lb.	.35	–
Triethylenetetramine tanks, frt. equald.	lb.	1.43	1.46
Tri-iso-tolyl trimellitate, f.o.b. works	lb.	.51	.55
Tri-isobutylene, tanks, divd.	lb.	.45	–
Tri-isopropanolamine, dms., c.l., frt. alld. E.	lb.	.57½	–
Trimethylamine, anhyd., tanks, frt. equald., 100%	lb.	.54½	–
25% soln., tanks, frt. equald., 100% basis	lb.	.63½	–
40% soln., tanks, frt. equald., 100% basis	lb.	.56½	.57
Trimethylolpropane bgs c.l. t.l. divd.	lb.	.73	–
Trimethylolpropane triacrylate, t.l. dms., f.o.b. works	lb.	1.50	–
Tripentaerythritol, tanks, frt. alld., E.	lb.	1.00	–
Triphenyl phosphate, dms., t.l., frt. equald.	lb.	1.64	.78
Tripropylene glycol tanks, frt. alld. E.	lb.	.64	–
Tris-(hydromethyl) nitromethane, solid, t.l. works	lb.	.805	–
Trisodium phosphate (see Sodium phosphate, tribasic)			
l-Tryptophan, dms, 25-kilo lots	kilo	62.00	65.00
Tung oil, tanks, imp. New York	lb.	.31	.33
Tungstic acid 92½%, dms., 1,750-6,000 lbs., works	lb.	12.85	–
Turmeric, Alleppey 5%	lb.	.65	–
Turmeric, Alleppey over 6%	lb.	.70	–
Turpentine, crude sulfate tanks, f.o.b. Southeast works	gal.	.70	.80

U

Ultramarine blue pigments, 550-2,000 lb.-lots, works	lb.	1.30	–
violet, same basis	lb.	2.20	–
Umber pigment, burnt, American, frt. equald.	lb.	.13½	.15½
raw, American, dom., bgs., l.c.l., same basis	lb.	.13½	.14¾
Undecylenic acid, dms., works	lb.	2.70	–
Urea, 46% N, ind., bulk, 50-ton c.l., divd.	ton	200.00	220.00
46% N, agricultural, bulk, divd. Midwest	ton	200.00	215.00
46% N, agricultural, bulk, divd. West	ton	210.00	–
Uva-Ursi leaves, bls.	lb.	.22	–

V

Valerian root, Belgian, bgs.	lb.	.65	.85
Indian. bgs.	lb.	.45	–
Vanadium oxytrichloride, 3,000 lb. cyls., works	lb.	5.40	–
Vanadium pentoxide, tech., gran., per lb. of V_2O_5, 550-lb. dms., works	lb.	4.10	4.94
fused or flake, per lb. V_2O_5, 550-lb. dms., works	lb.	3.35	3.65
Vandyke brown, bags., t.l., frt. equald.	lb.	.27¼	–
Vanilla beans, Madagascar	lb.	37.00	–
Java, tins	lb.	27.00	30.00
Vanillin, USP, dms., f.o.b works	lb.	6.25	–
imp., dms.	lb.	4.75	5.00
Versinol Ag	lb.	.64	–
Vetiveryl acetate, dms.	kilo	60.50	–
extra	lb.	63.00	–
Vetiver oil, Bourbon, dms.	lb.	49.00	–
Chinese	lb.	16.00	–
Haitian	lb.	26.50	–
Java	kilo	34.00	–
Victoria blue toners, molybdated, PMA dms.	lb.	6.20	6.30
tungstated, PTA, dms.	lb.	10.40	–
Vinyl acetate monomer, tanks, divd.	lb.	.39	–
Vinyl chloride monomer, polymer grade, tanks, f.o.b. works	lb.	.28	–
Vinyl ether, USP, anesthesia, 75-cc. bots., hospitals	bots.	1.56	–
2-Vinylpyridine t.l., dms. works	kilo.	7.81	–
tanks, works	kilo.	7.61	–
Vinyltoluene, bulk, f.o.b.	lb.	.67	.73½
Vitamin A, synthetic, dry, pharm., 500,000 A units per gm., 50-kilo. lots	kilo	33.00	–
Vitamin A, liq. in oil, pharm., 1,000,000 A units per gram, 10 kilo lots	kilo	41.00	–
Vitamin A, feed grade, 650,000 units per gm.	kilo.	16.70	23.85
Vitamin B_1 (see Thiamine hydrochloride).			
Vitamin B_2 (see Riboflavin and Yeast).			
Vitamin B_{12}, cryst., non-sterile, USP (cyanocobalamin), vials, 50-gram, lots	gram	8.00	9.75
Vitamin B_{12}-1% trituration of cryst. B_{12} (cyanocobalamin USP) with dicalcium phosphate, 25-kilo dms.	kilo.	10.75	12.75
Vitamin B_{12}, 0.1% trituration of cryst. B_{12} (cyanocobalamin USP) with mannitol, 25-kilo. dms.	kilo.	15.60	–
Vitamin B_{12}, cobalamin concentrate NF with mannitol. 1,000 mcg, per gram, dms, ...	per gram activity	19.45	–
Vitamin B_{12}, 1% Vitamin B_{12}, USP, absorbed on resin, 5-kilo dms., 500-gram lots, frt. alld.	per gram activity	15.65	–
Vitamin B_{12}, 1% cobalamin concentrate, NF, absorbed on resin, 5-kilo dms., frt. alld.	per gram activity	15.40	–
Vitamin B_{12}, 1% cyanocobalamin in gelatin, 2.5-kilo dms., frt. alld.	per gram activity	15.40	–
Vitamin C (see Ascorbic acid).			
Vitamin D (see Cholecalciferol)			
Vitamin D_2 (see Codliver and Fishliver oils).			
Vitamin E (see a-Tocopherol and Wheat germ oil).			
Vitamin H (see Biotin).			
Violet methyl toner (see Methyl violet toner)			

W

Warfarin 0.5%, dms., ton lots, frt. alld. New York or Chicago	lb.	.75	–
Wheat germ oil, cold-pressed	gal.	16.50	17.50
cold-processed	gal.	14.00	–
White precipitate, USP, powd., 100-lb. dms., f.o.b. works	lb.	7.892	11.24
Whiting (see Calcium carbonate).			
Wintergreen oil, syn. (see Methyl salicylate).			
Witch hazel bark, bls.	lb.	1.35	–
leaves, bls.	lb.	1.75	–
400 mesh, bgs., c.l. works	ton	134.00	–
325 mesh, bgs., c.l. works	ton	117.00	–
high aspect ratio, bgs., works	ton	164.00	–
Wollastonite, t.l., f.o.b., producing plant. general grade	ton	200.00	–
325 mesh	ton	140.00	141.00
400 mesh	ton	160.00	–
1250 mesh	ton	500.00	–
Wool grease, USP (see Lanolin).			
Wormseed oil (see Chenopodium oil, NF)			
Wormwood oil, cns.	lb.	31.00	–

X

Xanthan gum, food 300-lb. dms., f.o.b. works	lb.	5.65	6.20
ind., grade, same basis	lb.	4.54	–
Xylene, petroleum, ind. or nitration, tanks			
Alliance, La., f.o.b.	gal.	.80	–
Atlanta, Ga., divd.	gal.	.80	–
Bayonne, N.J., divd.	gal.	.80	–
Bayonne, N.J. f.o.b.	gal.	.80	–
Baytown, Tex., f.o.b.	gal.	.80	–
Chicago, Ill., divd.	gal.	.80	–
Clairton, Pa.	gal.	.80	–
Ft. Wayne, Ind., divd.	gal.	.80	–
Gulf Coast, spot, barges	gal.	.80	–
Houston, Tex., divd.	gal.	.79	.80
New Jersey Metro, divd	gal.	.80	–
Xylene, petroleum, ind. or nitration, tanks			
Philadelphia, Pa., divd.	gal.	1.36	–
Providence, R.I., divd.	gal.	1.42	–
South Bend, Ind., divd.	gal.	1.37	–
m-Xylene, high purity, tanks, f.o.b. Texas City, Tex.	lb.	.36	–
o-Xylene, tanks, works	lb.	.125	[illegible]
p-Xylene, tanks, divd.	lb.	.165	–
m-Xylenediamine, dms., t.l., f.o.b. works	lb.	1.70	–
2,4-Xylidine, tech., liq., c.l., t.l. f.o.b. works	lb.	1.50	–
Xylidines, mixed, o-m-p., dms., c.l., t.l., f.o.b. works	lb.	1.00	–

Y

Yara yara, 25-lb. cns.	lb.	2.81	–
Yeast, pure brewer,s debittered, NF, Saccharomyces, t.l., f.o.b. works	lb.	1.10	–
Yerba, santa leaves, bls.	lb.	2.40	–
extra, bots.	lb.	28.50	[illegible]
Ylang-ylang oil, extra grade	lb.	36.50	–
grade 1	lb.	25.00	–
grade 2	lb.	25.00	–
grade 3	lb.	22.00	–

Z

Zein, bgs., 2,000-lb. lots	lb.	7.50	[illegible]
Zinc acetate, NF, dms.	lb.	1.00	[illegible]
tech., dihydrate, bgs., t.l., works	lb.	1.60	–
Zinc borate, tech., 43% ZnO, 37% B_2O_3, 50-lb. bgs., 20,000-lb. t.l., f.o.b. works	lb.	.55	–
cryst., 37% ZnO, 49% B_2O_3, 250-lb. dms. 20,000 lbs. t.l. f.o.b. wks.	lb.	.89	–
Zinc chloride, USP, gran., dms.	kilo	9.79	–
Zinc chloride, tech., soln. 50%, tanks, f.o.b. Cleveland, Ohio	100 lbs.	20.20	–
Concord, N.C.	100 lbs.	20.20	–
Freeport, Tex.	100 lbs.	20.20	–
Old Bridge, N.J.	100 lbs.	20.20	–
65 degree, same basis Cleveland, Ohio	100 lbs.	27.90	–
Concord, N.C.	100 lbs.	27.90	–
Old Bridge, N.J.	100 lbs.	27.90	–
70 degree, same basis Cleveland, Ohio	100 lbs.	29.70	–
Concord, NC	100 lbs.	29.70	–
Old Bridge, NJ	100 lbs.	29.70	–
72 degree, same basis Cleveland, Ohio	100 lbs.	33.20	–
Concord, NC	100 lbs.	33.20	–
Old Bridge, NJ	100 lbs.	33.20	–
Zinc chromate, bgs., divd.	lb.	1.12	–
Zinc cyanide, dms., c.l.	lb.	1.65	[illegible]
Zinc dust pigment type 1 & 2, dms., c.l., f.o.b. plant	lb.	.59	[illegible]
Zinc ethylenediamine tetracetic acid, 8.4% Zn., ammonia salt soln., t.c., t.t., f.o.b. works	lb.	.56	–
9% Zn., ammonia salt soln., t.c., t.t., f.o.b. works	lb.	.48	–
Zinc fluoborate, liq. conc., dms., t.l., works, frt. equald.	lb.	.66	–
Zinc metal, high grade, divd.	lb.	.47	[illegible]
Zinc naphthenate, liq. 8% Zn, dms., divd	lb.	.95	–
Zinc nitrate, tech., flake 300-lb. dms.	lb.	.34	[illegible]
Zinc oxide photo conductive, bgs., c.l., frt. alld.	lb.	.47¼	[illegible]
Zinc oxide, USP 50-lb. bxs., c.l., frt. alld.	lb.	.46½	[illegible]
Zinc oxide pigment, American process, lead-free bgs., c.l., frt. alld.	lb.	.40	[illegible]
Zinc oxide pigment, French process regular, bgs., c.l., frt. alld.	lb.	.41	[illegible]
Zinc phenolsulfonate, purif., gran., 250-lb. dms., t.l., frt. alld.	lb.	1.62	–
Zinc pyridinethione, 48% dispersion, dms., f.o.b. works	lb.	8.50	[illegible]
industrial grade		14.50	–
Zinc resinate precip. 7.2-7.6% Zn, dms., frt. alld.	lb.	.45	–
Zinc silicofluoride, dms., c.l., t.l., works	lb.	.17	[illegible]
Zinc stearate, USP, bulk, t.l.	lb.	.92	[illegible]
Zinc sulfate, gran., monohydrate, industrial grade 36% Zn., bgs., c.l., works	100 lbs.	26.50	[illegible]
agricultural grade powd., bulk, same basis	100 lbs.	22.50	–
Zinc yellow (see Zinc chromate).			
Zinc-ammonium chloride, bgs., c.l., works	lb.	.42	–
Zinc undecylenate, dms., works	lb.	4.67	[illegible]
Zinc-formaldehyde sulfoxylate, basis 200-lb. dms., frt. alld.	lb.	1.05	–
Zircon gran. bgs., bulk c.l., works	ton	165.00	[illegible]
Zircon milled bgs., 200 and 325 mesh, c.l., works	ton	225.00	–
Zirconium acetate soln., 25% ZrO_2, dms., c.l., 30,000 lbs. min., works	lb.	.97	–
22% ZrO_2, same basis	lb.	.78	–
Zirconium hydride, powd., electronic grade, dms., works	lb.	[illegible]	–
Zirconium oxide, powd., coml., dms., 2,000 lbs. min.	lb.	4.25	–
electronic, same basis	lb.	7.25	–
insulating, stabilized, 325°F same basis	lb.	3.31	–
insulating, unstabilized, 325°F same basis	lb.	[illegible]	–
dense, stabilized, 30F, same basis	lb.	[illegible]	–
Zirconium oxychloride, liq., ctns. 5-ton lots, works	lb.	[illegible]	–

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21899-Pfaudler Reactor, 1,500 gal., 316L SS dimple jkt.
21896-Pfaudler Reactor, 10,000 gal. 316L SS clad, 60 HP. (4)
21900-Pfaudler Reactor, 15,000 gal. 316L SS dimple jkt. (3)
21897-Metal Arts Corp. vessel, 17,000 gal. vert. 317L SS. (2)
21898-Brighton Corp. Tank, 12,000 gal. vert., solid 316L SS. (2)
21875-Bins, 176 cu. ft., S/S, cone bottom flat top. (4)
21891-Bins, 450 cu. ft., C/S, epoxy lined. (6)
21904-Bins, 450 cu. ft., C/S, epoxy lined. (6)
21905-Bins, 500 cu. ft., C/S, epoxy lined, flat top, conical bottom. (4)
21918-Worthington cent. pump, C/S, 15HP, 200 GPM at 44 psig (2)
21916-Union Pump-inline, C/S, mod. 4x6x8.5 VCK, 40 HP. (4)
21906-Edw Ronneburg Rot. Dryer, S/S, steam heat, 10 HP. (4)
21881-Heaters, C/S steam, type BNF 2420 (6)
21914-Flotronics bin vent, filters, 122 sq. ft., 12 bags.
21889-Kalron Feeder twin screw, S/S mod. 5400-150 (4)
21901-Sparkler filter, 352 sq. ft. C/S, mod. VR-32-32.
21882-Screw conveyor, 304 SS, 7" dia. x 11L, 1.5 HP.
21888-Strong Scott Rib Blender, 25 cu. ft., 5 HP. (3)
21920-Welex extruder 8", 30:1 L/D, 400 HP.
21870-Welex extruder 8", 30:1 L/D, 600 HP.
21876-Conair pelletizer, S/S, mod. 1024, 40 HP. (2)
21874-Water bath, S/S, portable. (4)
21887-Ross Static Mixer, 304SS, 3"x8 element. (4)
21917-Ingersol Rand pump, in-line pump, C/S, 30 HP.
21915-Goulds, C/S turbine pump, 200 HP. (2)
21913-Worthington cent. pump, S&S, 2 HP. (4)
21912-Union pump-inline, S/S, 7.5 HP (2)
21910-Tank, 840 gal., flat top & bottom.
21920-Modern Welding Tank, 4800 gal. horiz. rubber lined.
21878-Gorman Rupp pump, centrifugal C/S, mod. 82EZ. (2)
21871-Prodex extruder 8", 30:1 L/D ratio, 600 HP.
21892-Buffalo blower, size 30, C/S, 10 HP (3)
21908-Buffalo exhaust fan, size 35, type B, 15 HP.
21880-Sutor Bill Blower, C/S, 40 HP. (4)
21922-Buffalo blower, type 40-3CB, 40 HP. (4)
21894-Buffalo blower, mod. 45-3CB, 75 HP. (3)
21883-Bird, 32x50 centrifuge, 80:1 gearbox. (2)

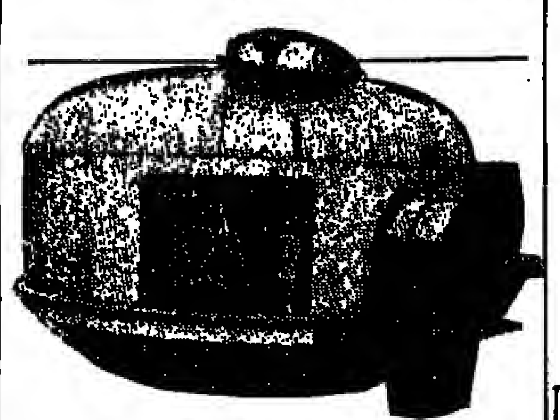
21883-Bird Centrifuge, 32x50, 80:1 gearbox.

21893-Environeering scrubber, mod. A33-14000
21895-Tank, 850 gal. vert. coal tar epoxy lined.
21911-Tank, 54000 gal. vert. C/S epoxy coated flat top/bot.
21903-Tank, 50,000 gal. vert. C/S epoxy, flat bot. conical top.
21902-Worthington compressor, mod. 4BB-2, vert. 125 psi. (2)
21879-Sweco sifter 60", mod. LS60S88, 2.5 HP.
21923-Kason sifter 60", mod. K601SS, S/S, 1HP.
21884-Flotronics Cyclone mod. FTHEC370-T, 304 S/S 12" dia. dish top. (3)

ATTENTION: EAST COAST BUYERS!
61,000 gal. Tanks, T304SS, 18'dia.x32'H, flat top & bot., Chemineer Agit., mod 7HTD-20, 20 HP, 27 RPM. (4)

FILTER PRESSES

19846-Shriver P&F filter press, 12"x12" alum. plates, closed delivery, 23 chambers.
20534-Sperry Filter Press, 30", alumn.
20539-Sperry filter press 30", 35 Aluminum plates, 357 sq.
15370-Shriver 32" x 32", polypropylene, 27 plates, ratchet closing.
15929-Shriver ALP, plate & frame, 18 36" x 36", S/S recessed plates.
19789-Clow/Bethlehem filter press, 36", recess plates, 25 chambers.
20076-Sperry filter press, 36", cast iron plates, closed deliv.
19462-Independent filter press, 42" x 42", polypropylene, 4 eye closed, 34 chambers.
20550-Sperry filter press, 42" Ehd closer, 41 alum. plates.



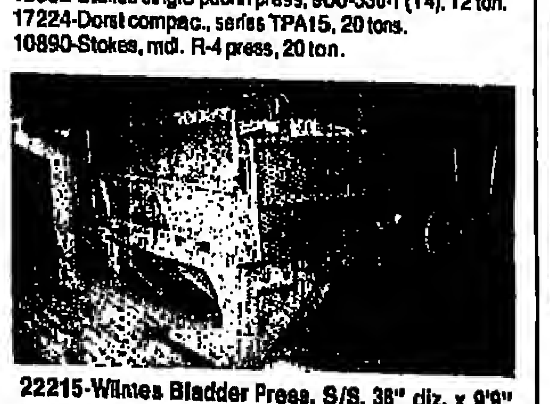
21772-Drucknutsche (Rosemund Type) Pressure batch Filter, 117" Dia., 76 Sq. Ft., jacketed, agit. 15 HP, Side Discharge... Call Herb Landy (312) 350-2200

FILTER-ROTARY VAC.

15828-FE, Inc. 36" dia.x12", S/S, string disc., 1/2 HP.
17477-FE, Inc., 3' dia x 5', T316SS, belt disc., vac pump.
11177-Dorr Oliver S/S, 5' dia. x 6'L.
11653-Oliver T-316SS, precoat 5'3"x8'.
19431-K.S. flexibelt, 6' dia. x 6' face, 316SS.
18392-Elmco belt filter, 8'x10', steel drum, w/Nash pumps.
15827-Ametek, 8' dia.x14'0" face, maxi-belt, S/S.
17936-Elmco, 316SS, 10' dia x 14', knife discharge.
17283-Impco belt filter, 12' dia. x 12', 304SS, Nash vacuum.
20251-K.S. T304, vacuum filter, 12' dia x 14', 304SS.
20323-Dorr Oliver 11'6"x16' face, S/S cont. parts.
11466-Elmco 10'x10' rotary vac. filter.

PRESSES

UNUSED Manesty Express, 10 ton, 20 stations.
11602-Colton Press mod. 260, 31 die stations, 1800 TAB.
21382-FJ Stokes rotary tablet, 15 station, 10 ton.
21418-Manesty rotary tablet, 16 station, 10 ton.
14425-Stokes Tab Press mod. #551, 51 station, 4 ton.
21417-FJ Stokes rotary, 27 station, 4 ton, double sided.
503881-Komarak Greaves, mdl. 75MSS briquetting press, 20.5" dia. x 4.5" face.
13392-Fitzpatrick Chilsonator, 50 HP, mdl. HA-50-30-210.
18802-Stokes single pucnh press, 900-530-1 (T4), 12 ton.
17224-Dorst compac., series TPA15, 20 tons.
10890-Stokes, mdl. R-4 press, 20 ton.



22215-Wintes Bladder Press, S/S, 38" dia. x 9'9" long, horiz, 5 HP, unitized. (2)

DUST COLLECTORS

21125-Fabri-Jet jdl. SO9-4B bin vent, 42 sq. ft.
16398-Mikro dust collector, S/S, 63 sq. ft., mdl. 9-6-100, pulse jet.
21153-EVO, bin vent, 72 sq. ft., S/S, 5 HP
20253-Unused EVO pulse jet collector, mdl. 84BF009C, 90 sq. ft.
21192-JH Day mdl. RJ-18RJ38, 125 sq. ft., CS, 3 HP.
21222-Fabri-Jet, mdl. SQ16-80, 151 sq. ft.
20398-Pulse jet collector, "FlexKleen," mdl. 58CT24 AV II w/175 sq. ft., cloth, C.S.
21286-Mikro dust collector, 285 sq. ft., S/S.
20256-Unused EVO Corp. pulse jet dust collector, mdl. 99BF030C, 350 sq. ft.
20255-Unused EVO Corp. dust collector, shaker type, mdl. MS049C10, 575 sq. ft.

SCREENS

21203-Sprout Waldron sifter, D10, 6 decks.
21150-Sprout Waldron, D10, 1 HP, 10 decks, S/S cont.
21167-Sprout Waldron, D10, 2HP, 10 decks, S/S cont.

UNUSED CENTRIFUGES

21593-Sharples P5400 Sanitary Centrifuges w/200 HP motor, 25 HP backdrive, gearbox, 5" pitch conveyor, CIP, control panel (2) LATE MODEL

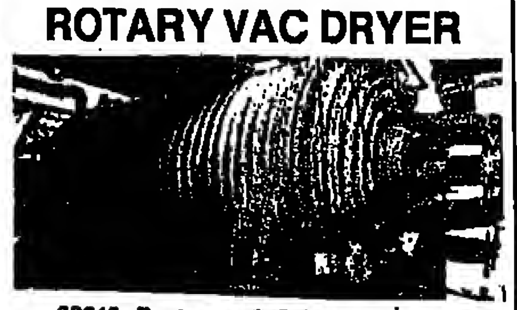
CENTRIFUGES

20827-Bird, 18"x24" steel, conical bowl.
20826-Bird, 24"x38" steel, con. bowl, gearbox.
20819-Bird, 24"x38", S/S, 15 degree, contour bowl.
20684-Bird 24"x60", H series, steel w/motor.
20364-Bird 32"x 50", SS T316 contour, 76HP.
12883-Bird 36"x96" contour, 10 deg., T317 ELC.
20137-Alfa Laval, NX 418-B31-60, 316SS, gearbox.
17308-Dorr Oliver, 304SS, Merco mdl. 16L, 30 HP.
13566-Sharples, mdl. P 600, gearbox, motor.
19767-Unused Sharples, 3 phase, P3000, S/S, carbide.
20407-Sharples P2000 316SS, 20 HP drive motor.
21369-Sharples P3000 w/gearbox.
20686-Sharples P3000, 52:1 gearbox, S/S casting.
21725-Sharples, P3400, S/S, gearbox & motor.
19249-Sharples, P5400, 316/317SS, 200 HP, gearbox.

CENT-BASKET VERT.

21408-Delaval 22"x16" perf. basket hyd. drive.
15815-Delaval Mark III, perf. basket, 40"x24", 316SS, 30 HP, hydr., drive.
19446-Sharples Sludge-Pak, SP-5500, 40"x24" basket centrifuge.

ROTARY VAC DRYER



22210–Bertrams, S/S 6'dia. x 12' dished heads, half pipe coil jacket 200 psi, 20/13 HP, unitized.

FILTER PRESSES

19846-Shriver P&F filter press, 12"x12" alum. plates, closed delivery, 23 chambers.
20534-Sperry Filter Press, 30", alumn.
20539-Sperry filter press 30", 35 Aluminum plates, 357 sq.
15370-Shriver 32" x 32", polypropylene, 27 plates, ratchet closing.
15929-Shriver ALP, plate & frame, 18 36" x 36", S/S recessed plates.
20076-Sperry filter press, 36", cast iron plates, closed deliv.
19462-Independent filter press, 42" x 42", polypropylene, 4 eye closed, 34 chambers.
20550-Sperry filter press, 42" Ehd closer, 41 alum. plates.

Special Sale
MUST MOVE STAINLESS TANKS
12,000 GAL., T304SS, 12'Dia.x 14' high, flat bottom, open top (16)
PRICE $8000 ea. FOB PA #20655

TANKS-S/S

21283-Tank, S/S vert., 1200 gal., 6' dia.x6', flat top & bot.
20651-Tank, SS, 9000 gal., agit., 12' dia. x 14'6" H.
20655-Tank, SS, 12000 gal., 12' dia. x 14', flat bottom, open top.
17043-Jos Oat horz. tank, 304SS, 16,000 gal., 12'6" dia. x 22'9½" long, 10 PSI.

REACTORS

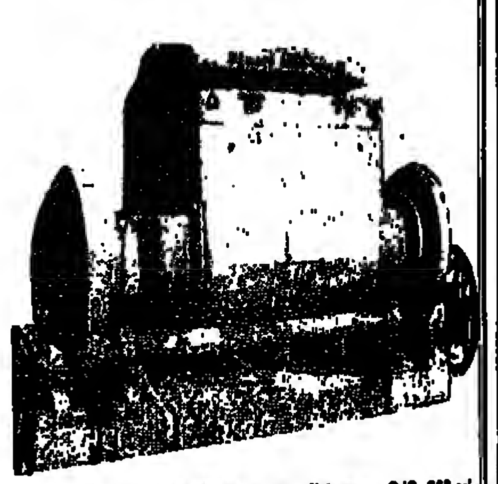
20252-Unused Reactor, 800 gal., 304SS dimple jktd.
10138-Pfaudler, 800 gal., T-316 L SS, 55 PSI int/150 PSI.
20928-Brighton, 4000 gal., 8' dia. x 10', 316 ELC S/S
20456-Reactor, 4,000 gal., 316 S/S, 8' dia. x 7'9" st. side.
15475-Brighton, 4000 gal., 316SS, vacuum.
20287-GH Hicks, 4000 gal., 316 SS, pipe coil jkt.
20923-Richmnd Eng. Reactor, 4600 gal., T316 stain/clad.
Pfaudler 10,000 gal. reactors T316L, 100 psi int, 180 psi.
Pfaudler 15,000 gal. reactor T316L, 100 psi int., 200 psi jkt.

WE WANT TO BUY YOUR SURPLUS EQUIPMENT AARON PAYS TOP DOLLAR $$ CALL TODAY!!!

MIXER/EXTRUDER

17654-AMK 25 gal. Mixtruder, Sigma, ST 7.5 HP.
18298-J.H. Day 25 gal. Dispersion, 25 HP vari main, 10HP van screw.
20996-AMK 30 gal. S/S, jkt. Sigma, 7.5 HP Main, 6 HP screw.
21334-Ross 40 gal., S/S hot oil jkt., Sigma 6" disch. screw.
19826-AMK 50 gal. ST, jkt., Sigma.
19421-AMK 75 gal. ST, jkt., Sigma, 10" disch. screw.
17136-AMK 120 gal., ST Sigma, 11.5" screw.
14832-AMK 150 gal., S/S, Sigma 15HP main, 10HP screw
19494-AMK 150 gal., S/S Sigma, 50 HP main, 10HP screw
20116-AMK 150 gal., ST, Sigma, 15 HP/10 HP
503527-New Aaron 300 gal., T304SS, mix extruder, Sigma, jkt., up to 200 HP main, 75 HP hyd. screw.
STILL INSTALLED . . . CALL NOW!

21350-B.P. 500 gal. Sigma steel, jkt. 125 psi, 150 HP, Hyd. tilt



21459-Baker Perkins Mixer, dbl. arm, C/S, 300 gal. Geared both ends, 100 HP, mod. 18JUMMZ.

MIXERS – PLOW

503755-Littleford, FKM 600D, SS jacketed, 25 HP.
20754-Littleford, FKM 3000D 65 CF, S/S, full jacket
19214-Now Plow Mixer, 80 cu. ft. 347SS. jacket, 100HP
20829-Littleford FKM 4200D, S/S, 87 cu. ft. JKT.

MIXER RIBBON

21120-Ribbon Blender, S/S, 10 cu. ft., jkt. SS, 150 psi
20276-Read ribbon blender, 14.7 cu. ft. 304SS, 3 HP.
20616-Unused Day, 316SS, 23 cu. ft., 5HP.
20189-Robinson, 25 cu. ft., S/S, jacket, 10 HP.
20985-Int'l 34 cu. ft. S/S dbl. ribbon, 5 HP. (4)
20212-Haas ribbon, 36 cu. ft., S/S, 15 HP.
19266-Ribbon Mix 80 cu. ft. T304 SS, 5 HP (4)
19568-Howe, 115 cu. ft., sanitary S/S, double spiral ribbon
20983-Strong Scott blender, 130 cu. ft., 304SS, 25 XP gear motor.
21124-Ribbon Blender, 304SS jkt., 160 cu. ft., 30 HP.
20614-Unused JH Day ribbon, S/S 270 cu. ft., 25 HP.
21114-JH Day ribbon blender, S/S clad, 75 HP, 460 cu ft.

JUST PURCHASED

22352-Twin screw extruder (NA Bitruder Co), 65 mm, elec. heated, 20 HP DC, pellett die, vac pump used 100 hours
22390-Groen Kettle, 300 gal., dbl. motion twin agit., 45 psi jacket, channel iron S/S.
22351-Atlas Copco air compressor, 600 CFM @ 125 psi 125 HP. (5)
22198-Gouda Flaker, 4'x4' stainless steel.
22199-Gouda Flaker, 4'x4' stainless steel.
22344-Christian ribbon mixer, 38 cu. ft. steel jacket 7.5 HP. unitized.
22342-Sheet extrusion line, Prodex 4.5", 24:1 L/D, 50 HP, sheet die, chill roll stack, Famco shear.
22343-NRM Turret Winder, 48-46 w/2 adjusto speed motors, 1 HP
22346-Sheet Coater, 54" steam heated.
22345-Berringer 4.5" screen charger w/hyd. pump.
22277-Fitzpatrick, D6, S/S screw feed, 7.5 HP motor.
22275-Groen 60 gal., S/S 25 psi.
22271-Will-Flo 226 gal., S/S, jkt. 50 psi.
22278-U.S. Bottlers B-2 Vac Filler, S/S
22267-Thermo King railroad car refrigeration system
22252-UNUSED Bins, 4'6" OD, S/S 75 cu. ft. (6)
22257-UNUSED Tank, 100 gal., T304SS, 30" dia., DH
22253-UNUSED Tank, 550 gal., T304SS, 4' OD, DH
22256-UNUSED Tank, 1200 gal., T304SS, 5' dia. x 7' H, DH
22255-UNUSED Tank, 1800 gal., T304SS, 6'6" dia. x 7' H, DH.
22254-UNUSED Tank, 3,000 gal., T304SS, [illegible] 21'H, coil.
22258 Heat Exchanger, 40 sq. ft., 12" CS shell, [illegible]
22213-Sweco, 48" single deck, S/S. (5)
22214-Niagara, mod. 320-32, 350 sq. ft., [illegible]

NEW ACQUISITIONS

50 gal. SS jktd. Sigma, 15 HP
700 gal. Readco jktd. Sigma mixer, 400 HP
2 cu. ft. PK SS Twin Shell w/bar
23 cu. ft. SS Day double ribbon, 7½ HP
18"x28" 316 SS Bird Solid Bowl Centrif.
3TH Mikro Pulverizer 30 HP
STS-100 Aeromatic SS Fluid Bed Dryer
300 gal. Pfaudler G/L 25/90 psi, 3TW
Unused 70 cu. ft. Titanium dble cone vac Dryer
100 gal. DeDietrich G/L reactor, 30/75 psi mech. seal, 2HP New 1979
SS Ht. Exch.; 246,200, 125, 56, sq. ft.
10 gal., 7 gal., B-P Dispersion jktd., vac., 20 HP
2½ gal. Day SS Sigma jktd., vac., 10 HP
SS Littleford mixers w/choppers FKM 2000 D, 1200 D, 600 D, (4)
SS Twin Shell 40, 30, 20, 3, 2 cu. ft.

REACTORS

2000, 1000, 750, 300 gal. G/L, mech. seals (7)
3000 gal. 316 SS 100/150 psi vari. agit.
3000 gal, 304 SS, 25/125 psi, ½ pipe coil jktd., agit New 1974
2000 gal. 316 SS, 75/180 psi, agit.
1000 gal, 316 SS, 30 & FV/150 psi, agit.
500 gal., 316 SS, 75 & FV/70 psi, agit
24 more in stock from 10 to 300 gals., 304 & 316 SS. Call Now.

SS BLENDERS

69 cu. ft. SS Patt. cone, w/liquid bar
Ribbon/Paddle: 650, 200, 120, 70, 40, 23 cu. ft. (28)
Conical: 320, 200, 150, 130, 100, 75, 69, 40, 30, 20, 10, 5, 2 cu. ft. (18)
Twin Shell: 200, 100, 75, 40, 30, 20, 3 cu. ft. some with intensifiers (12)

MIXERS

Double Arm: 1000, 500, 300, 200, 150, 10, 7, 2½, gal. Sigma, jktd.
Pony: 125, 75, 100, 80, 60, 50 gal. (12)
Planetary: 100, 85, gal. vacuum
Dispersers: 75, 50, 40, 25, 20 15 HP (8)
Littleford: FKM 2000D, FKM 600D, D, FKM 130D, jktd. & choppers (3)

MISCELLANEOUS

Vac. Pumps: NASH: CL 2003, CL 1003, AT 2004, L5, MD 674 KINNEY: KDH 150, KD 30, KS 27, Stokes: 212 H 10.
Tablet Presses: STOKES, MANESTY, COLTON. All Sizes

FILTERS

42" Shriver poly, 50 ch., 4 eye
48" poly chambers, 1½" cake, 4 eye (150)
SS filter presses: 18",16",13",12"(7)
Sparklers: 33S9, 18D10, 8-6

CENTRIFUGES

48"x30", 40"x24", 316 SS auto-batch
40", 30", 26", basket, SS & R/L avail.
P5000, P3400, P3000, P2000, Sharples
40"x60", 24"x60", 18"x28", 6" Bird
DeLaval: NX 207, BRPX 207
Westphalia: SAMN 5036, SA 1435-076
HS36, HS24, S8, 316 SS B-P "Ter Meer"

MILLS/PULVERIZERS

Chilsonators: all SS, 7LX 10D, 6LX16D
Fitzmills: F20, F8, D6 (8)
Mikro: 4TH, 3TH, 2DH, 2SCB, 1SH, 8MA
3-Roll Mills: 16"x40" to 4"x8" (9)
Ball & Pebble: 8'x12' to 2'x2' (12)
Colloid: 50, 25, 15, 10, 5, 1HP
Raymond: 5057, 5047, 4237, 3036

DRYERS/EVAPORATORS

Wiped film: 173, 87, 25, 21.6, 12 sq. ft.
Belt Flakers: 48"x45', 20"x20'
Con. Vac.: 500, 100, 50, 40, 10, 2.5 c.f.
Rotary Vac.: 130, 40, 20, 10 cu. ft.
S.S. Fluid Bed: 100 kg, 60 kg, 30 kg, S.S.
Double Drum: 12"x18", 6"x8", S.S.
Flakers: 6'x5', 3'x6'6", drum
Rotary: 8'x70' to 2'x14' (12)

GEM George Equipment & Machinery Co.
135 Manchester Place, Newark, N.J. 07104
Tel. (201) 481-0900 Telex No. 138944

UNUSED PATTERSON-KELLEY twin shell blender, 1 cu. ft., 316 S/S, liquid-solids bar, UNUSED.
PATTERSON-KELLEY "V", 1 cu. ft., S/S, 550 lbs.
BUFFALO 6"x7½" dble. drum dryer, chrome plated.
THROPP 6"x12" two roll mill, 7½ HP.
KENT 6"x18" three roll mill, ¾ HP XP.
HOCKEMEYER 10 HP disperser, X P, VS.
STANDARD METALS model JI 600 bottle cleaner.
KALIX model KX60 tube filler, S/S, agit. hopper..
CHERRY BURRELL S/S oscillating granulator.
CHROMALOX 100KW water-glycol heat transfer sys.

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SPECIALS

Hull 48 & 180, Sq. Ft. Lyophilizers Stoppering
Hull 250 Sq. Ft. SS vac. Shelf Dryers
Westfalia centrifuges SAMN 15007 & SAMR 15037
Chemapec 10,000 gal. SS fermenter agit. 120 HP
BP 100 gal. 15 VHM Sigma Mixer 30HP
Deluxe SS mixer 8MB 3 vari
Sargent SS apron dryer 4'x20' & 12'x80'
Raymond 3036 Hiside mills (2)
Shriver 36" ALP filter 316 SS 40 Chambers, plate shifters, hydraulic (2)
Change Can SS Vac. jkt. mixer with (2) 1000 gal. WC kettles 125 HPXP unused
FB 20" & 96" 4-roll L calenders.
FB 2 roll mill 60" & 84"
Banbury mixers # 3 A, 3 D, & #11 D
APV Paraflow pasteurizer type HX
New England-unscramblers-NEH 120 & 200

MIXERS

Ribbon Blenders SS, jkt., 30 & 200 cu. ft.
Ribbon Blenders 1½, 6, 17.5, 60 & 215 cu. ft.
Alsedo Research cone mixer #6 CV
Dry Meuta MBX 880 jkL 40&S 5HP
Dry SS Hauta Mixers 52, 71, & 700 cu.ft.
P-K Conical Blenders 5, 15, 20, 60 cu.ft.
Day Pony Mixers SS 50, 60, 125, 175 gal.
Simpson Mullers SS 24", #1F UNUSED & #2
FB Banbury mixers #1, 3D, 9 & 11D

BAKER PERKINS JKT. MIXERS

750 gal. Sigma Bottom 400 HP
100 gal. Dispersion 15 JEM 2, chrome plate 50 HP
100 gal. Sigma DHM bottom 20 HP (3)
100 gal. Sigma JHM Tilt 20 HP
50 gal. Dispersion Mixer-Extruder 100 HP
11 gal. Sigma Tilt 15 HP
5 gal. Sigma ANK SS Mixer-Extruder
3 gal. Sigma Dispersion & Duplex SS (3)
½ gal. Sigma ½ HP vari

GREAT BUYS FROM LOCATION
(3) SS Ribbon Blenders 215, cu. ft., 54"x12' ASME full jacket 30 to 75 psi 40 H.P.
(1) As above but 30 cu. ft., 26"x99", 10 HP
Patterson Ball Mills Jkt. XP 2 each 4'x5' (25 HP), 5'x 6' (40 HP) & 6'x 8' (75 HP)
Louisville 5'x25' SS Rotary Dryer
(2) SWENSON TRIPLE EFFECT EVAPORATORS 15,000 & 7,000 lbs./HR., INCONEL & HASTELLOY

REACTORS–TANKS

2,000 gal. SS reactors 150 psi. jkt. agit. (2)
1,000 gal. SS reactors 150 psi, jkt., agit. (2)
Pfaudler 100 & 500 gal G/L reactors
2,150 gal. S.S. 100 psi 6'x9' (4)
2,500 gal. reactor 316 SS, 75 psi + Vac./150 psi jkt.

EVAP.–DRY CENTRIFUGE

Bird 36"x50" Hastelloy C centrifuge
Blaw Knox 1500 & 150 sq.ft. SS Evaporators
LUWA Thin Film 200, 173, 120 & 20 sq.ft.
VAC. oven 42" dia. x 60"L, 30 KW
STOKES Freeze Dryers 24 & 300 sq.ft.
BIRD 24"x38" S.S. Cont. Cent.
Bowen 10'x30' & 20'x80' SS spray dryer
Holoflite SS dryer-Chiller Model D1612-6
Abbe SS 2 cu. ft. conical vac. dryer

GENERAL

Reitz Prebreaker 300 HP SCR Drive
IR compressor 1000 cfm, 100 psi 200 HP.
ROT-VAC. Filter 10'x18', 8'x8', 4'x8', & 3'x3'
YORK Turbomaster 7000 Ton Refrig.
STOKES Model 540,294, T-4 T Presses
Gaulin SS Homogenizers MC 18, MF 18 + MC 45

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ME SELECT used machinery

LARGE BIRDS

(12) 40" x 60" Bird decanter, 316 S/St, 15/3 deg. contour, 5" pitch, single lead conveyors w/Stellite hard surfacing, 80:1 gearbox, 100 HP V-belt main motor drive. New late 60's. Excellent condition. Limited Use. Immediately Available from Stock.

(2) 32" x 50" Bird decanter, 316 S/ST, 15/3 deg. contour, 5" pitch, single lead conveyors w/Stellite hard surfacing, 80:1 gearbox, 75 HP V-belt drive. Excellent condition. Limited Use. Immediately Available from Stock.

WYSSMONT TURBO DRYER

Stainless Steel, mdl L-12, steam heated, 48" dia S/ST trays & sides w/heater controls.

VACUUM DOUBLE DRUM DRYERS

(2) Blaw Knox designed double drum dryers, 18" x 48" & 36" x 120", chrome plated, each w/-vacuum chambers & vacuum pump package. Excellent condition. Ready to Ship.

WYSSMONT DRYER

Model N-22, 8' dia trays 22 high, with stainless steel contact parts. May be shipped in one piece. Steam heated.

ROTARY FILTERS

Ametek 8' x 12' rotary w/belt discharge, 316 stainless, new 1974 - Excellent condition.

-Ametek 5' x 8½' rotary w/belt discharge, 316 stainless. New 1974 - Excellent condition.

STAINLESS DRYER

Louisville stainless steel steam tube dryer, 8' dia x 40', stainless steel clad shell w/stainless steel steam tubes.

Also Available:

Roto–Louvre mdl 900-32, 9' dia x 32' long, steam heated, 30 HP motor, all fans & Flex-Clean dust collector.

CRYSTALLIZER

Titanium contact parts, 8000 lbs p/hr capacity. New 1976. Complete and still installed.

RAYMOND ROLLER MILLS

★★★ Just Purchased ★★★

(3) Raymond high side roller mills, model 5057, double whizzer separator, fan, feeder, cyclone, duct work & bucket elevator.

LARGE SHARPLES SUPER DECANTERS

(2) Model P8100 Sharples Super Decanter, 316 S/ST, carbide tiles, 250 HP main drive, 126:1 gearbox w/backdrive. New 1979. Complete. Excellent Condition.

FLUID BED DRYER

Jeffrey fluid bed dryer, 5' x 20', 304 sanitary construction, complete installation including fans, dust collector, S/ST scrubber & controls.

EXCELLENT CONDITION

INDUSTRIAL FILTERS

(2) Industrial Filter Syeytems, 600 & 200 sq. ft. each, dry cake discharge, vulcanized rubber lined tank w/316 S/ST filter leaves, completely automated w/computer controlled actuators. Like New Condition

RESIN REACTOR

(1) 8500 gallon 316 S/Tt reactor, 30 PSI/full vacuum internal, 15 PSI jacket, 45 PSI 316 S/ST coils, 10/15 HP 2 speed turbine agitator, S/ST overhead condenser. New 1977. Still Installed. Excellent condition.

STRONG SCOTT SOLIDAIRE DRYERS

Model SJS-24-16, 24" dia x 16' long, 304 stainless, dimple jacket, 50 HP vari drive.
Model SJS-20X16, 20" dia x16' long, 316 stainless steel, jacketed.
Model SJS8X52, 8" dia x 52" long stainless, jacketed, pilot size.
Stainless steel mdl SJS-36-22 w/-jacket & 40 HP drive

JUST PURCHASED

Link Belt Roto-Louvre Dryer 10'3" x 36' long, mdl #1003-36, complete system incl 50 HP drive, firebox w/20,000,000 BTU gas burner, all fans, duct work & controls, multi-cyclone collector & Sly 30,000 CFM baghouse. Excellent Condition – Still Installed. We will load – Call for FOB Pricing

AMETEK ROTARY PRECOAT FILTERS

(1) 2' x 3', T304 sanitary stainless, complete station w/vacuum receiver, pump, mix tank & Nash vacuum pump. Rebuilt.

(3) 10' x 16', 316 stainless steel, 100 HP Roots vacuum pumps, receivers, interconnecting piping, etc. Rebuilt.

(1) 3' x 3', string discharge, 316 stainless, incl S/ST agitated through, vari speed mtr, vari speed dry on drum, 316 stainless Sihi vacuum pump. Excellent condition.

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LIQUIDATION OF 160MM # /YR. SODIUM TRIPOLYPHOSPHATE PLANT– KEARNY, NEW JERSEY

1–8' dia. x 50' Bartlett Snow Rotary Dryer, SS, 100 HP.
1–8' dia. x 50' Louisville Steamtube Rotary Dryer, SS clad, 40 HP.
1–11'6" x 70' lg. Bartlett Snow Calciner, 316SS, 1100°C., complete.
1–11'6" dia. C.E. Raymond Separator, single whizzer, CS constr.
1–24,000 Gal. Mix Tank, SS constr., 16' dia. x 16', 20 HP.
1–20,000 Gal. Storage Tank, SS constr., 16" dia. x 14'.
2–10,000 Gal. Storage Tank w/-jckt., SS constr., atmos. int., 150 psi jckt.
1–10,000 Gal. Mix Tank, SS constr., 13' dia. x 10', 30HP.
1–10,000 Gal. Mix Tank w/int. coils, 13' dia. x 10', 30 HP.
1–Marley NC Tower, 88"W. x 14'6" L. x 9'H.
1–1130 sq. ft. Micro–Pul Reverse Jet Dust Collector, CS constr.
*Large Quantity Silos. Many Screw Conveyors Available–various sizes, CS & SS construction.

**BUY DIRECT FROM PLANT SITE AND SAVE!!!
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DRYERS

Drum Dryers/Flakers
(1) 24" dia. x 36" Buflovac SS dble. drum dryer
(2) 32" dia.x 108" Blaw Knox CI dble. drum dryer
(1) 32" dia. x 17'6" Sandvik SS belt flaker
(1) 36" dia.x 10' Buflovak CI dble. drum dryer
(3) 42" dia.x120" Blaw Knox CI dble. drum dryer
(1) 40" dia.x 28" drum flaker, chrome plated drum
(1) 48" dia.x 40" CI flaker, mfg. by Buffalo Foundary
(1) 48" dia.x 40 drum flaker, nickel plated drum, mfg. Blaw-Knox

Fluid Bed
(1) 60 Kg. Aeromatic, Batch, 6'x9', 56,000
(1) 100 Kg. Aeromatic Model ST 100, sanitary SS
(1) Fitzpatrick Model FA 250, SS, 20 HP XP

Holoflite
(1) Western Precipitation Model P00SSO-A, twin screw, 12" dia. x 20' long, SS constr., jckt. rated 15 psi, complete with 7.5 HP vari-speed drive.
(1) New/Never Used Joy Processor, CS, single screw, 16"x16' long, rated 110 psi @ 340° F., sprocket & chain drive by 1.5 HP varispeed drive.

Rotary Vacuum
(1) 200 Cu. Ft. Stokes, SS constr., complt.
(2) 165 Cu. Ft. Pfaudler, Double Cone, G/L, 30 &FV/50 psi jktd., 15 HP vari-drive
(1) 150 Cu. Ft. Blaw Knox, Nickel
(2) 132 Cu. Ft. Stokes, Nickel
(1) 72 Cu. Ft. Blaw Knox, SS
(1) 60 Cu. Ft. Titanium Double Cone
(1) 50 Cu. Ft. Gemco, 316SS sanitary, double cone
(1) 37.8 Sq. Ft. Horiz. Thin Film, vac. int. & 150 psig, 304/316SS
(1) 37 Cu. Ft. Gemco, SS
(1) 30 Cu. Ft. P-K Twin Shell, 304SS
(1) 20 Cu. Ft. Abbe Twin Cone, 304SS

Spray
(1) 30"x3' Bowen Laboratory w/3' cone bottom, SS constr., w/centrifugal atomizer, 3 HP blower & motor.(1)
(1) Niro lab size 32"diex2'w/2'cone w/centrif. atomizer SS contacts
(1) 18' dia. Bowen complt. system SS contacts, new 1976

CENTRIFUGES

(1) Deleval BRPX 309, SS, 20HP
(1) Unused Model B-10 Podbielniak, Alloy 20
(1) Sharples AS-26, SS
(2) Sharples AS-16P, 316SS
(1) Alfa–Laval SS Decanter, Horiz., Mdl. NX314
(2) Dorr Oliver Mdl. CH30 CSU "Merco," 316SS contacts, 150 HP
(1) Baker Perkins S-32 "Pusher Type," SS, 50 HP
(1) Bird 18" x 28", 316 ELC, contour bowl.
(2) Bird 24"x38", 316SS, 40 HP
(3) Sharples P-3000, 316SS, 30 HP
(1) Sharples P-1000, SS 20HP
(1) Unused Bird 36 x96, 317L SS
40"x 20" Tolhurst centrifuge, Kynar lined, perf. basket
(1) Tolhurst 48" x 24" perf. basket, 316SS sanitary, auto. plow & discharge, rated 85 #/cu. ft. @ 900 RPM, 20 HP XP.
(1) Tolhurst 48" x 24" Batchmaster, 316SS, perf. basket, w/hydr. plow & 20 HP hydr. drive
(1) Tolhurst 48"x24" Batchmaster, rubber lined, perf. basket, w/hydr. plow & 20HP hydr. drive
(2) Tolhurst 48" x 24" Batchmaster, Heresite lined, perf. basket, w/hydr. plow & 20 HP hydr. drive
(1) Western states 48"x 24", 316 SS
(1) Fletcher 48"x 28" Suspended type, SS perf. basket, 20/10 HP
(1) Sharples Tornado 48" x 30", 316SS, perf. basket, 40 HP XP
(1) Alfa Laval Model MAPX 210 T24, SS wetted parts
(2) Sharples C-27, 316 SS, wetted parts, 40 HP
(1) Sharples C-20, Super-D-Hydrator, SS, 30 HP
(1) Dorr Oliver Mercone Screener Model C-400 X2, all SS, twin screw disch., 10 HP

PARTIAL LISTING ONLY

EVAPORATORS

(1) 1 Sq. Ft. Artisan "Kontro" Ajust-O-Film sys., 316SS
(1) 1.4 Sq. Ft. Luwa Wiped Film, 316SS, 1.5 HP
(1) 1.4 sq. Ft. Luwa thin film SS
(1) 2.5 Sq. Ft. Rodney Hunt Turbo Film 347 SS
(1) 5.4 sq. Ft. Luwa filmtruder, 316 LSS
(1) 6.54 Sq. Ft. Votator Evaporator System, 316 SS contacts, 15 psi & FV & int., 150 psi jkt.
(1) 8.7 Sq. Ft. Rodney Hunt Turbo-Film, 304 SS contact parts, 15 psi & FV/150 psi jckt.
(1) 10.8 Sq. Ft. Luwa SS Wiped Film Evap. System, 15/550 psi
(1) 19.5 Sq. Ft. Votator Turba-Film, 304 Sanit. SS FV/150 psi 10HP
(1) 20 Sq. Ft. Kontro Horiz. Adjust-O-Film, 316ELC, 50 psig, 15 HP
(1) Approx 31 Sq. Ft. Vert., Turbo-Film Processor, 304 SS Contacts
(1) Like New 37.8 Sq. Ft. Luwa Horiz. Thin-Film Dryer, 304/316L SS
(1) 40 Sq. Ft. Kontro Adjust-O-Film, SS constr., 20 HP
(1) 47 Sq. Ft. Artisan rising Film, Hast. "C"
(1) Approx 51 sq. ft. Pfaudler Wiped film, 316 SS, 100/85 & FV
(1) 60 Sq. Ft. Kontro Wiped Film Syst., SS constr., FV/150 psi, 40 HP
(1) UNUSED 66 sq. ft. Luwa thin film dryer horiz. 316 L wetted parts, FV int., 150 psi sat steam jkt.
(1) 141 Sq. Ft. Rodney Hunt Turbo-Film, 316 SS 15 psi int., 35 psi jkt 40 HP XP

BLENDERS

800 Cu. Ft. Jktd. Dbl.Rbn., CS
Approx. 480 Cu. Ft. CS, 75HP
UNUSED 450 Cu. Ft. Marion Paddle, CS, 75 HP
400 Cu. Ft. J. H. Day Dbl. Ribbon Carbon Steel Contr. 40 HP (1)
300 Cu. Ft. CS Dbl. Cone 30 HP
200 Cu. Ft. KS 316SS Dbl. Cone
175 Cu. Ft. P-K Twin Shell, 316SS
150 Cu. Ft. J. H. Day Dbl. Ribbon Carbon Steel Contr. 25 HP (2)
69.3 Cu. Ft. CS Dbl. Cone, 7.5 HP
63 Cu. Ft. Marion Paddle, CS
60 Cu. Ft. 304 SS P-K, Twin Shell, w/int. bar
60 Cu. Ft. Gemco Dbl. Cone, 304SS
40 Cu. Ft. Gemco Twin Shell, SS Sant. Finish
37 Cu. Ft. Gemco SS
30 Cu. Ft. P-k, 304 SS, W/liq. bar.
20 Cu. Ft. P-K, Twin shell, SS
16 Cu. Ft. Robinson Dbl. Rbn. CS
15 Cu. Ft. WC Marion SS
10 Cu. Ft. Gemco dbl. cone, CS, 1½HP
10 Cu. Ft. P-K Sanit Twin Shell 1½HP
10 Cu. Ft. Howes, CS, Dbl. Rbn.
5 Cu. Ft., SS, Dbl. Cone W/liquid-solids bar
10" P-K zig zag

FILTERS

Pressure Leaf
1–562 Sq. Ft., 316ELC, Hercules, 28 leaves
1–512 Sq. Ft., 316SS, Niagara, 21 leaves
1–400 Sq. Ft. R/L Sparkler
1–327 Sq. Ft., 304SS, Ind. Filter, 11 leaves
1–320 Sq. Ft. Durco 316 SS, 11 Leaves
1–259 Sq. Ft. Pronto Mdl. #3259, 75 psig
1–200 Sq. Ft., SS, Hercules, Horiz.
1–191 Sq. Ft. Enzinger, SS, Vert., 75 psi
1 – 157.64 sq. Ft. Sparkler model 55-5-28, 316SS
1–150 Sq. Ft. Horiz., 12 Vert. Leaf 316SS
1–135 Sq. Ft. Ni, Bowser, Vert.
1–35 Sq. Ft. Hercules Model 5, 316 SS, horiz. tank vert leaves 50 psi
1-Sparkler Mdl #33D9 SS constr.
1-Sparkler Mdl.#18 D 12, SS const.
1-Sparkler Mdl.#18 D 4, constr.
1-Sparkler Mdl.#33S 28, constr.

Rotary Vacuum
1–56.5 Sq. Ft. KS, Inconel 600
1–56.5 Sq. Ft. K-S, 316SS, flexibelt disch.
1–87.92 Sq. Ft. Feinc, SS wetted parts, spring disch., 56" dia. x 6' face drum
1–132 Sq. Ft. Dorr Oliver, 304SS, maxibelt disch.
1–200 Sq. Ft. Elmco, 316SS, 8'x8'
4–250 Sq. Ft. D.O. 316L SS Precoat, 8" x10', sanit
1–250 Sq. Ft. K-S 316SS, coil disch.
1–300 Sq. Ft. Elmco, 316SS wetted parts, precoat type w/knife disch., 10" dia. x 10' drum, complt. w/control panel & aux. equipment
1–314 Sq. Ft. Elmco, precoat disch., 316SS
1-400 Sq. Ft. Elmco, CS, Precoat
1–500 Sq. Ft. Elmco, 316SS, belt disch.
1–3'x1' 316SS, knife disch.
1–3'x1' Dorr Oliver, FRP w/receiver & Nash H4 vac. pump, 10 HP
1–3'x 1' K-S comp. sys., 316 SS Flex-belt disch

COFFEE PLANT LIQUIDATION

(1) Mdl. #DASO-6 Fitzmill w/15 HP motor, on stand.
(1) Mdl. #D-6 Fitzmill w/15 HP main motor & 2 HP on stand.
(1) Mdl. #2DH Micro-Pulverizer.
(1) Mdl. #3TH Micro-Pulverizer, SS, w/40 HP main motor & ¾ HP screw motors.
(1) Micro-Pulsair SS Reverse Jet Dust Collector, Model #64-S-8-20.
(1) 8" x 42" Votator Scrapped Surface Heat Exchanger, w/5 HP motor & jckt.
(1) 48" Sweco Single Deck Screen w/cover, SS constr., 1 HP
(1) 32" w. x 8' lg. Witte Vibrating Conveyor, SS, w'cover. 2-deck.
(1) 2'x6' Witte SS Fluid Bed Dryer w/perf. plate.
(1) 32" W. x 13' Sandvick Belt Flaker, SS, 9' cooling section.
(1) Stokes Freeze Dryer System, complt. w/prebreaker, micro-vac. & York chiller.
(1) Reitz Disintergrator, 30 HP, Model #RP12-K122.
(2) Jones Dewatering Presses.
(1) 1500 Gal. SS Jcktd. Mix Tank, 3 HP, dished top, flat bottom.
(2) 2000 Gal. SS Mix Tanks, sanitary fittings.
(2) 1500 Gal. SS Mix Tanks, sanitary fittings, ¾ HP Lightnin.
(1) 2000 Gal. SS Mix Tank, sanitary fittings, 3 HP Lightnin.
(2) 2000 Gal. SS Storage Tanks.
(2) 1800 Gal. SS Mix Tanks, sanitary fittings, 3 HP Lightnin.
(1) 1000 Gal. SS Storage Tank, agitator mount, (no agitator)
(1) 1000 Gal. SS Jcktd. Mix Tank, atmos. int., 150 psi jckt.
(3) 1500 Gal. SS Mix Tanks, 3 HP Lightnin.
(1) Gaulin Homogenizer, KL 61 BS, Type 620 HG, SS.
(1) Gaulin Homogenizer, KL 35 BS, Type 120 HG, SS.
(2) 22' Dia. Spary Dryers, complete system.

FOR ADDITIONAL INFORMATION–CALL IDM TODAY...

RECENT PURCHASES

(1) Carrier 2'x46' Vibrating fluid dryer, 316SS
(1) Podbielniak mdl. #9700-2 Cent., 250 PSI
(1) 5,000 gal. CS, Vertical Sphere, Rated 1007 PSIG
(2) 12¾' dia.x307⅞' Long Packed Col. 304SS, 275 design pres.
(1) 64 sq.ft. U-Tube Heat Exchanger, all 316SS 75/150 psi
(1) 86 sq.ft. Heat Exchanger, all 316SS 75/450 psi
(1) 86 sq.ft. Heat Exchanger, CS/SS 75/450 psi
(1) 90 sq.ft. Heat Exchanger, CS/SS 75/75 psi
(1) 680 sq.ft. Heat Exchanger, CS/SS 75 PSI Shell
(1) 1005 sq.ft. Heat Exchanger, All 316SS 75/150 PSI
(1) 1401 sq.ft. Reboiled CS/SS 75/150 PSI
(3) 650 gal. Levus Lined Plastic Tanks 4'dia.x5½' st.sd.
(2) Fairbanks Morse Gas Compressor 3380 CFM 600 h.p.
(2) HR Type ESV Compressors 30 HP
(1) GATX Fuller Air Compressor 50 HP
(1) Corken Compressor 7.5 HP

MANY MORE ITEMS IN STOCK-CALL IDM TODAY!

EQUIPMENT WANTED

GOOD, USED, CHEMICAL, PHARMACEUTICAL & RELATED EQUIPMENT – CENTRIFUGES, DRYERS, FILTERS, REACTORS, TANKS ETC.
WE WILL PURCHASE INDIVIDUAL ITEMS OR COMPLETE PLANTS.
CALL OUR OFFICE TODAY. TOP DOLLARS PAID. NO DEAL TOO BIG OR TOO SMALL.

GLASS...GLASS...GLASS

WE ARE GLASS SPECIALISTS WITH A TREMENDOUS INVENTORY FEATURING UNUSED, USED AND REGLASSED ITEMS. OUR SHOP PERSONNEL ARE FULLY TRAINED TO HANDLE GLASS.

REACTORS

Glass Lined
4,000 Gal. Pfaudler, 100/90 psi, TW
4,000 gal Pfaudler, 50/30 psi
3,700 gal Glascote, 50 & FV/90 psi
3,000 gal Glascote, 50 &FV/ 90 psi
3000 gal Pfaudler, 75/90 psi
2,000 gal Pfaudler, 75/90 psi
1,000 Gal. Pfaudler, 100&FV/90 psi, 4RW
1,000 Gal. Pfaudler, RA60 Series, 100& FV/90 psi, 4DW
1,000 Gal. Pfaudler, RA60 Series, 100& FV/90 psi, 4TW
800 Gal. SS clad, 60/60 psi
750 gal. DeDietrick, Phila drive
500 Gal. Pfaudler, 100&FV/85 psi, BH drive

Stainless Steel
4,000 Gal. 316SS, Atmos./50 psi, withcoils
3,000 Gal. 347SS Blaw Knox, 150/50 psi
2,500 Gal. 316L SS, 75/75 psi, 150 psi int. coils
2000 Gal. Nooter Autoclave, 316L 2000 psi, FV int. coils
2,000 Gal. Dusenberg, 316 SS, 15/35 & FV int., 50 psi jkt.
1,750 Gal. 316SS Nolte, 1467/50 psi
1,500 Gal. 304SS, 10 HP Lightnin
1,500 Gal. 304 SS, 100/30 psi
1,000 Gal. 304SS, 250/80 psi
1,000 Gal. 316SS, 50/75 psi jkt
1,000 Gal. 316 SS, 15 & FV/50, 10 HP
1,000 Gal. 316 SS, 100/30 10 HP
750 Gal. 316SS, 75 & FV/50 psi
750 Gal. 304SS, 50/60 psi
600 Gal. 316SS, 3000psi, 10 HP
600 Gal. SS, 50 psi, 1.5 HP XP
500 Gal. 316SS, 55 & FV/55 psi
100 Gal. 316SS, 15/50 psi
100 Gal. 316ELC SS, 500/90 psi

★★★ SPECIAL OFFER ★★★
4-DRAIS SAND MILLS, TYPE PM-80 STS-DDA, MANUFACTURED 1984-85 PRICED TO SELL ● CALL FOR DETAILS

MIXERS

4.5 Gal. Kneader Master Cont., SS w/jkt.
5 Gal. AMK 304SS Jcktd. Kneader Extruder
15 Gal. W.C. Readco Sigma Blade Dbl. arm
25 gal. Readco DBL/Arm Sigma Blade Jktd. SS construction 15 H.P.
80 Gal. Hockmeyer Pony, SS contacts, 7.5 HP varispeed
100 Gal., SS, Sigma Blade, Jcktd. 40 HP
200 gal. W-P CS dble arm Sigma blade, 20 HP
250 gal. AMK Kneader Extruder, Sigma Blades, CS construc, 40 psig, trough jkt.
500 liter Welex hi intensity, SS contact parts
500 Gal. S-W Rubber Cement, CS, 2-10 HP motors (2)
Unused 1000 Gal. Sanitary 316SS B-K Dbl. Motion Change Can; 100&FV/165 PSI, 125HP
Littleford Model FKM-600D, SS
Littleford Model FKM-600S, SS
Littleford Model FKM-2000, SS, w/choppers
7 Cu. Ft. 304SS Nauta Model MBX-70
10.6 Cu. Ft. Nauta D-105, CS
Welding Eng. Model 2FV1V2S Twin screw Extruder, SS, Contacts, 150 psi
Koehring mdl. 350, 40 HP
NEW/NEVER USED 75/37.5 HP Hockmeyer Disperser

PLUS LOTS - LOTS MORE

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PLANT WAS IN OPERATION THRU APRIL OF 1986
COMPLETE PLANT EQUIPMENT FOR SALE INCLUDING:
PILOT...FULL SCALE MANUFACTURING EQUIPMENT, PLANT UTILITIES

COMPLETE REACTOR SYSTEMS...WASTE TREATMENT PLANT ...ROTARY VACUUM DRYERS... CENTRIFUGES...TANK FARMS ...AND MUCH MORE!
JUST A PARTIAL LISTING OF EQUIPMENT:

CENTRIFUGES
ALL316SS EQUIPMENT COMPLETE WITH CONTROLS, PLOWS, SET UP FOR NITROGEN PURGE EACH INDIVIDUALLY SKID MOUNTED
48"x24", 40"x24" SHARPLES SS, HYDRAULIC DRIVE (5)

CHILLERS
3, 25, 40, 100 TON

COMPRESSORS
INGERSOLL RAND XLE-16–10X7, 150 HP, 100 PSIG (3)
INGERSOLL RAND XLE-15 ½-10x7, 125 HP, 70 PSIG

DRYERS
DOUBLE CONE VACUUM SYSTEMS: DEDIETRICH G/L, 60 CU. FT.
PFAUDLER G/L, 70 CU. FT.
DEVINE 316SS, (1) 30, (2) 70, (2) 90 CU. FT. SYSTEMS
316SS ROTARY VACUUM DRYER SYSTEMS: (3) 142, (1) 120 CU. FT.
SHELF: 6 VACUUM DRYER SYSTEMS
VARIOUS SIZES & MATERIALS OF CONSTRUCTION
SS & CS ROTARY VAC. DRYERS: 125, 100, 90, 80, CU. FT.

FILTERS
FILTER PRESSES: ERTEL PRESSURE LEAF (6)
STAR 18" DIA., 19 & 21 CHAMBERS, SS
SPERRY 56", 28 & 35 CHAMBERS (4)
VACUUM BELT EXTRACTORS: 2 EIMCO 2'x12',316SS VAC. BELT FILTER SYSTEMS
40 FILTER PRESSES 42" 43" 48" 56" POLY PRO, R/L CAST IRON
4 PASSAVANT MDL. 200 VAC-U-PRESS BELT FILTERS, 250 SQ. FT

FIRE PREVENTION EQUIPMENT
INCLUDING: DIESEL POWERED FIRE PUMP...NEW IN 1984
ELECTRIC POWERED FIRE PUMP 150 HP

MIXERS
LITTLEFORD MDL. FKM2000-0, 73.5 CU. FT.

MILLS
BAUERMEISTER TURBOMILL, 40 HP, COMPLETE SYSTEM
FITZPATRICK MDL. D6 DASO 7.5 HP COMMINUTORS 7.5 HP
FITZMILL MDL. DKSO12 COMMINUTOR
ENTOLETER MILL 5 HP, MDL. M1112G1-23

100'S OF PUMPS

REACTORS
GLASS LINED
11 SS JKT. AGIT. KETTLES FROM 750 GAL. TO 8,000 GAL.
(1) 3,000, (7) 2,000, (22) 1,000 (8) 500, (2) 300, (1) 200, (1) 130, (4) 100, (4) 50, (1) 30 GALLON
ALL REACTORS EQUIPPED WITH TW DRIVES, MECHANICAL SEALS MANY WITH VARIABLE SPEED DRIVES, GLASS RECEIVERS & GRAPHITE HEAT EXCHANGER
STAINLESS STEEL 316 & 316 ELC
(1) 4,000, (1) 3,000, (3) 2200, (6) 2000, (1) 1,300, (2) 1,250, (9) 1,100, (7) 1,000, (7) 500, (2) 300, (1) 30, (1) 10 GALLON

DISTILLATION EQUIPMENT
SMITH MOLECULAR ROTA–FILM MDL. 700-12-P, SKID MOUNTED
SOLVENT RECOVERY SYSTEM
OTHER DISTILLATION COLUMNS AVAILABLE

– SPECIAL –
750 GAL. 304 SS READCO MIXER SIGMA
SHARPLES SS MODEL P-3400 CENTRIFUGE (3)
6M² ROSENMUND (NUTSCHE TYPE) 316 SS FILTER
4,200 GAL. HAST C REACTOR 125 FV/175
UNUSED 1900 SQ. FT. HAST C HEAT EXCHANGER

TANKS/RECEIVERS
GLASS LINED RECEIVERS & CHEMSTORS
(2) 2,000, (10) 1,000 (1) 500; (4) 250, (5) 100, (2) 50 GALLON

STAINLESS STEEL
(1) 5,000, (1) 4,000 (1) 3,000, (8) 2,000 (3) 1,500, (4) 1,000, (1) 800, (7) 500, (1) 300, (3) 250, (5) 200, (1) 150, (3) 100, (3) 50 GALLON

TANK FARMS
GLASS LINED: (2) 10,000, (1) 5,000, (2) 2,000 GALLON
STAINLESS STEEL 316SS & 316LSS: (10) 10,000, (1) 8,000 (3) 7,500, (2) 6,000, (3) 5,000 (3) 4,000 GALLON
KYNAR LINED: 30,000 GALLON
HERESITE LINED: (1) 10,000 GALLON
LITHCOTE: (1) 10,000 GALLON
RUBBER LINED: (3) 10,000 GALLON
FRP: (1) 12,000 GALLON
STEEL: (1) 15,000 (1) 8,000, (2) 6,000, (7) 1,000 GALLON

IF YOU ARE BUILDING A NEW CHEMICAL PLANT OR EXPANDING A PROCESS YOU MUST VISIT THIS LIQUIDATION SITE

ALABAMA PLANT LIQUIDATION
(3) 290 CU. FT 316 SS ROT. VAC DRYER SYSTEMS
10'x 14' EIMCO ROT. VAC. FILTER
(1) LATE MODEL 19 VAC. PUMP W/FULLER V300 VAC. BOOSTER PUMP
REACTORS:
4,000 GAL. G/L BODY, 100FV/150FV JKT
(4) 3,000 GAL. 316 SS 60/30 HP AGIT. 100 PSI INT. W/COILS
(1) 3,000 GAL. SS 30 HP, 6TW, 300 PSI INT. W/COILS
(2) 2,000 GAL. 316 L SS, 75/200 PSI JKT
TANKS:
15,000 GAL. 316 LSS AGIT. 10'6x 23'
5,500 GAL. MONEL VERTICAL (3)
3,000 GAL. MONEL VERTICAL
2,200 GAL. MONEL VERTICAL (2)
4,000 GAL. G/L PFAUDLER CHEMSTORE 30 PSI
SS HEAT EXCHANGERS FROM 100 TO 500 SQ. FT.
MANY MISC ITEMS

CORN SYRUP/STARCH PLANT
200,000, 150,000, 50,000 LBS /HR PACKAGE BOILERS
7'x 50' 304 SS 5'x 30' CS ROT. HOT AIR DRYER
4'x 31', 72 TUBE SS ROT STEAM DRYER
600 SQ. FT U. S. AUTOJET FILTER CEILCOTE LND (3)
500 SQ. FT. HERCULES 316 ELC PR/LF FILTERS (4)
12'x 15' EIMCO BELT CS ROT. VAC. FILTER (2)
8'x10', 7'6"x16' EIMCO 316 SS PRECOAT FILTER (4)
500,265 SQ FT. 316 SS PLATE HT. EXCHS.
9,000' 6,500, 5,500, 3000 GAL. SS AGIT. MIX TANK (16)
7,000 GAL. 316 SS CONE BOTM. TANK 10'8"x 9'6"
3000 GAL 316 VAC.TANK15 PSI/FV
EQUIPMENT MUST BE MOVED IMMEDIATELY

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250,000,000 CU. FT./DAY
COMPRISED OF TWO TRAINS ON 60 ACRES OF LAND
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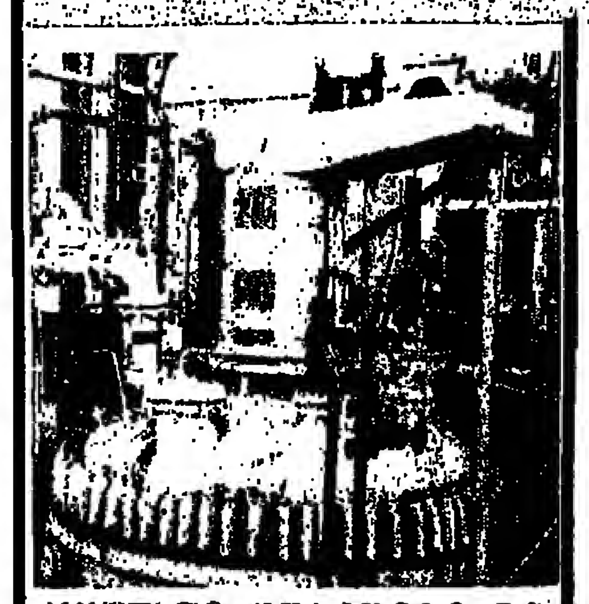

KETTLES–REACTORS, SS

30,000 gal. 304SS fermentors, 14' x 24', 25 psi/vac., coils, 200 HP agit. (4)
5,000 gal. 304SS, sim. int., 75 psi jkt., agit.
4,100 gal. 304SS kettle, 16 psi jkt., 5 HP agit.
3,500 gal. 316SS kettle, 20 psi jkt., 7½ HP agit. (2)
2,500 gal. 304SS reactor, 75 psi/FV int., 180 psi jkt.
1,500 gal. 304SS kettles, jktd., 5 HP agit. (3)
1,500 gal. Pfaudler 316 LSS reactor, FV/150 psi, 5 HP Agit. (2)
1,150 gal. 304SS reactor, 15 psi int., 25 psi jkt., 5 HP agit.
900 gal. 304SS reactor, 75 psi/FV int., 150 psi jkt., agit.
600 gal. 304SS reactor, 300 psi int., 75 psi jkt., coils (3)
500 gal. 304SS reactor, 150 psi int., 150 psi jkt., 5 HP agit.
300 gal. 316SS reactor, 75 psi/FV int., 60 psi jkt.
(50)... 316SS and 304SS reactors and kettles from 5 gallon to 400 gallon... call for list.

BIG PFAUDLER 316SS REACTORS

(3) 15,000 gal. Pfaudler, 316SS, 12'6"x 15', 100 psi, 200 psi jkt. Agit.
(4) 10,000 gal. Pfaudler, 316SS, 11'6"x 12'4", 100 psi, 180 psi, jkt. Agit.

REACTORS–GLASS

2 gal. Pfaudler, 750 psi/FV, 700 psi jkt.
20 gal. Pfaudler, 35 psi, 100 psi jkt., agit. (2)
30 gal. Pfaudler, jktd.
50 gal. Pfaudler, 25 psi, 100 psi jkt.
50 gal. Pfaudler, 100 psi/vac., 85 psi jkt., agit., 1975
100 gal. Pfaudler, 25 psi, 90 psi jkt., agit.
150 gal. Pfaudler, 25 psi/vac., 90 psi jkt., agit.
300 gal. Glascote, 25 psi/vac., 90 psi jkt.
500 gal. Pfaudler, 100 psi/vac., 90 psi jkt., vari-drive agit.
500 gal. DeDietrich, 85 psi/vac., 105 psi jkt., 5 HP agit.
750 gal. Pfaudler, 25 psi, 85 psi jkt., 6 TW agit.
1,000 gal. Pfaudler, 100 psi, 90 psi jkt.
1,000 gal. Pfaudler, 75 psi/vac., 90 psi jkt., 10 HP agit.
1,500 gal. DeDietrich, 100 psi/vac., 90 psi jkt., 1981,
1,500 gal. Pfaudler, 100 psi/vac., 90 psi jkt., 25 HP agit.
2,000 gal. Pfaudler, 100 psi/vac., 90 psi jkt., 15 HP agit.
2,500 gal. Pfaudler, 150 psi, 90 psi jkt., #TW6 agit.

NEW LIQUIDATION! CHEMICAL/POLYMER PLANT....ILLINOIS ..BUY BEFORE REMOVAL AND SAVE!!

Bird 32"x 50", centrifuges, 316SS, contour (2)
Welex 8" Extruder, 700 HP, 30:1 L/D (5)
Welex 6" Extruder, 400 HP, 30:1 L/D (2)
Conair 24" pelletizer, 40 HP (2)
Renneberg 5'x 25' 304 SS rot. hot air dryers, 10 HP, (3)
Sweco & Kason 60" screens, SS (2)
K-Tron 7000#/hr. twin screw volumetric feeder, SS, (5)
Pfaudler 1,500 gal. 316L SS reactor, FV/-180 psi' 5 HP agit. (2)
Pfaudler 10,000 gal. 316L SS reactor, 150 psi/FV int., 180 psi jkt., hyd agit (4)
Worth. Plant air comp., 323 CFM @ 125 psi, 75 HP, Model #4-BB-2 (2)
17,000 gal. & 12,000 gal. 316 SS Tanks (3)

PHONE (609) 267-1600

DRYERS

Blaw Knox 6'4"x 40' SS vac. dryer, 600 cu. ft.
Blaw Knox 36"x 20' vac. dryer 316L SS, 72 cu. ft.
Blaw Knox 66"x 36' vac. dryer, nickel
Mathis 24"x48" flaker, chrome plated
Sandvik 48"x24' SS belt flaker, UNUSED
Sargent 60" x 45' SS conveyor dryer
Blaw Knox 32" x 90" dbl. drum
Aeromatic #ST-5 fluid bed dryer, 5/10 KG
Witte 36" x 10' fluid bed, SS, sanit.-cooler
Renneberg 36" x 20" rotary dryer, 316 SS
96" x 50' Louisville SS rotary dryer
10' x 100' GATX rot. steam tube dryers, 140 psi (4)
Wyssmont #VTL-24 Turbo-tray dryer, 304SS
P-K 5 cu. ft. vac. dryer, 304SS
P-K 20 cu. ft. vac. dryer, 304L SS (2)
Abbe 30 cu. ft. 304SS vac. dryer
Devine 110 cu. ft. 304 SS vac. dryer
Pfaudler 165 cu. ft. glass-steel vac. dryers (2)
Abbe 325 cu. ft. 316SS vac. dryer
Devine 370 cu. ft. 316SS vac. dryer
Devine 564 sq. ft. vac. shelf dryer
Niro 30" SS spray dryer
Bowen 72" spray dryer, SS
Bowen 96" spray dryer, SS

FILTERS–VACUUM

36" x 1' Dorr-Oliver, fiber glass 9 sq. ft.
36" x 1' Ametek, 316 SS, 9 sq. ft.
40" x 3' Bird-Young, SS, 48 sq. ft.
4' x 16' Eimco, 316SS, 64 sq. ft., horiz.
6' x 3' Ametek, SS, 55 sq. ft.
6' x 4' Eimco, "Eimcomet" polypropylene, UNUSED
8' x 8' Eimco, SS, 200 sq. ft., precoat
8' x 10' Dorr-Oliver, 250 sq. ft., 316SS, precoat
8' x 12' Eimco, 316SS, precoat, 300 sq. ft., (3)
8' x 14' Dorr-Oliver, 316SS, precoat, 350 sq. ft. (2)
10' x 10' Eimco, 316SS, precoat, 314 sq. ft.
11'6"x 16' Eimco, SS contacts
12' x 14' Komline, 304SS, 525 sq. ft., flexibelt disch. (2)

FILTERS–PRESSURE

54 sq. ft. Funda, SS, jktd.
65 sq. ft. Artisan "Dynamic" filter/washer, SS (2)
140 sq. ft. Niagara # 36-140 316 SS (2)
600 sq. ft. U.S. Autojet, 316SS, sanit.
1000 sq. ft. U.S. Autojet #1000, 304SS
36" Shriver filter press, 546 sq. ft., hydraulic
42" Shriver filter press, 777 sq. ft., hydraulic
48" Shriver ALP recessed filter press, SS, 276 sq. ft.
48" Poly Filter Co. polypropylene filter press, 2094 sq. ft., 87 cu. ft. cake, 1983

PULVERIZERS

Mikro #4TH pulv., 125 HP, UNUSED (15)
Mikro #5MA atomizer, 5 HP
Mikro #6MA atomizer, SS
Pallman #REF8 pulv., 100 HP
Pallman #PP8 pulv., 50/75 HP
Abbe porcelain pebble mills... 36"x42", 36"x48", 42"x60", 48"x60", 60"x48" (7)
Raymond #6058 Hi-side roller mills, dbl. whizzer (2)
Raymond #73612 Hi-side roller mill, dbl. whizzer

NEW LIQUIDATION... CHEMICAL PLANT...GARFIELD, N.J.

(4) 316SS packed columns; 18" x 15'; 20" x 12'; 36" x 23'; 36" x 40'
(1) 36" x 46' Glitch 316L SS column, 24 trays
(1) 48" dia. x 60' high SS tray column
(1) 60" x 60' Glitch 304L SS column, 60 trays, FV/75 psi
(1) 72" x 38' high SS column, 11 tray
(1) 78" dia. x 43' high Nooter SS column, jacketed, 25 psi/FV 150 psi jkt., 20 trays
(5) Niagara Aero heat exchangers, SS contacts
(21) Shell and tube heat exchangers, 316 SS and 304 SS: 12, 41, 92, 213, 297, 300, 320, 393, 400 (2) 431, 460, 522, 524, 327, (4) 600, 1050, 1300 sq.ft.
(2) Niagara #70-26 leaf filters, SS, 69 sq.ft.
(1) Niagara #110 leaf filter, 75 sq.ft., SS
(1) Mikro pulverizer #2TH, SS
(3) Patterson 200 gal. SS Sigma blade mixers, jktd., vac. cover, bottom disch., 20 HP
(1) Porter 62 cu.ft. 304 SS dbl. cone blender
(1) 8000 gal. 316L SS tank, 9' x 16', horiz., coils
(1) 6000 gal. 316L SS vert. tank, 7' x 21', 80 psi WP, coils
(2) 4500 gal. 316 SS tanks, 7'6" x 13', agit.
(1) 1800 gal. 316L SS tank/agit, 6' x 8', w/coils
(1) 1500 gal. 316L SS tank, 5'6" x 8', horiz., w/coils
(8) 316 SS and 304 SS tanks: 1200, 1100, 600 (2), 250, 200, 100 gal.
(6) 3000 gal. vert. steel tanks, 8' x 9'
(1) Industrial filter dual unit dionization system, #3653P8A, Type 268, W/(2) 316L SS columns, 316 SS exchanger and tank, controls, etc... built 1979.
ALSO – SS pumps; (9) rubber-lined tanks on scales to 7500 gal; Rotoclone SS collector; blower; etc.

Over (50) Bird & Sharples decanters

CENTRIFUGES

Sharples P-5400 D-Canter, 316SS, Carbide tiles, late (2)
Sharples P-3400 D-canter, 316SS, tiles (2)
Sharples P-5000 D-canter, 316SS
Sharples P-660 D-canter, 316SS, back drive
Bird 12" x 30", 316SS, Decanter, 20 HP
Bird 18" x 28", 316SS, Decanter (3)
Bird 18" x 42" Decanter, steel, 10/30
Bird 24" x 38" Decanter, 304SS, contour-10
Bird 24" x 38" Decanter, 316SS, contour (3)
Bird 24" x 60" Decanter, steel
Bird 24" x 56" Decanter, SS, 125 HP
Bird 24"x 96" decanter, 304SS, carbide tiles, 1981, UNUSED (3)
Bird 32" x 50" Decanter, Monel, contour (2)
Bird 32" x 50" Decanter, 304SS, contour
DeLaval NX214-31B Decanter, 304SS, 20 HP (2)
Sharples AS16V "Super," SS (5)
Sharples AS26V "Super," SS
DeLaval BRPX-213-30, 316SS separator/desludgers (3)
Westfalia SAMN15037, Desludger/Separator, 316SS
Westfalia SA14-35-076 3-way separator, 316SS
Krupp 10" pusher, 316SS, 15 HP
Baker-Perkins 19" pusher, 304SS, 40 HP
Sharples 48" T-1600 auto-basket, 100 HP
Tolhurst 48" Batchmaster, rubber lined, 30 HP
Sharples 48" Tornado-Matic, SS, 25 HP
Delaval 48" Mark 111, 316SS hyd.
CENTRIFUGE PARTS... Sharples, Bird, DeLaval, etc.

EVAPORATORS

2.4 sq. ft. Rodney-Hunt SS, 3 HP
21 sq. ft. Rodney-Hunt Turbafilm #4, SS
87 sq. ft. Rodney-Hunt, 304 SS, Turbafilm
100 sq. ft. Pfaudler, 316L SS, wiped film
600 sq. ft. Goslin-Birmingham dbl. effect, SS
854 sq. ft. Buflovak dbl. effect, SS
1688 sq. ft. Roger dbl. effect, SS
Swenson 316SS cntinuous crystallizer, 9" x 14'

TANKS & VESSELS

30,000 gal., 304SS, 14' x 24', coils, 200 HP agit. (4)
20,000 gal., 304SS, 12' x 24' (2)
17,000 gal., 304SS, 11' x 24' (3
17,000 gal., 316LSS, 14'x 13', Agit. (2)
12,000 gal., 316LSS, 12'x 14', Agit. (5)
10,500 gal., 316L SS, 8' x 25'
10,400 gal., 304SS, 10'6" x 16', agit.
8,000 gal., 304SS, 10'6" x 12'
5,000 gal., 304SS, 9'x9', 25 HP agit.
3,500 gal., 304SS, 8'x9'
3,000 gal., 304SS, 7'x 10', agit.

MIXERS, BLENDERS

3.5 cu. ft. Henschel #FM15D, 17/20 KW
11.5 cu. ft. Henschel #115JSS, 92/46 HP
13.7 cu. ft. Lodige #W600/K1200, mix/cool comb.
20 cu. ft. P-K twin shell SS
35 cu. ft. Day Nauta, #NBX350, SS
62 cu. ft. Nauta 304SS mixer (2)
60 cu. ft. Gemco, TW SH, Sanit, SS
69 cu. ft. Patterson dbl. cone, SS
70 cu. ft. Day Nauta, #NB700, 10 HP
75 cu. ft. Day Nauta, SS, jktd.
75 cu. ft. Robinson SS ribbon blender, jktd.
98 cu. ft. Day Nauta, SS, 1981
110 cu. ft. J.H. Day, dbl. ribbon, 316SS
120 cu. ft. Cleveland ribbon blenders (5)
144 cu. ft. 304SS dbl. ribbon blender, 30 HP
169 cu. ft. Pfaudler, dbl. cone, glass steel jktd., vacuum
200 cu. ft. Young, ribbon, SS
316 cu. ft. Sprout-Waldron ribbon blender, SS, jktd.

(2) Sharples P3400 D-Canter, 316SS, back drive, little use since rebuilding!

NEW & UNUSED PROCESS EQUIP., 1982, IN ORIGINAL PACKING ... SOUTH CAROLINA, CALL! Phone (609) 267-1600

BALERS, Dispozapak #D600 balers, (2)
BAG PACKER, Howe-Richardson #G-S-17 semi-automatic bagging system SS contacts
BINS, 304L SS contacts, 1300 cu.ft./9720 gal.
CENTRIFUGE, Bird 24"x96", 304SS, Model 15 solid bowl continuous, 10 deg. contour bowl, Tungsten carbide tiles on conveyor, 150 HP
CHLORINATION SYSTEM, Wallace & Tiernan
COLUMN, 46" dia. x 15'9", 304SS
CYCLONE, DuCon Model 700/175 304SS high efficiency cyclones, size 210, Type VM (8)
DRYERS, Nooter 4' x 14' rotary vac. dryer, 316L SS shell and jacket, Incoloy ribbon agit. ASME 100 psi/FV int. & jacket. 100 HP
FEEDERS, Acrison gravimetric weigh feeders, Model 403-15,000-3,000-BDF-4, 304SS
FURNACE, C-E Air Co. "Cor-Pak" thermo oxydizers, direct gas fired
MIXER, Air mix blender system, Koppers-Sprout Waldron #36-50, 500 cu.ft., 304SS
MIXERS, Webb, 59" W x 15'L twin shaft paddle mixers or pug mills, 304SS contacts, (2)
PACKAGING SYSTEM, design to fill bags, palletize, shrink wrap, etc. automated system.
PULVERIZERS, Mikro #4TH pulverizers, 125 HP drive, (15)

[illegible] SALE"... POLYMER [illegible]OUNDING PLANT, [illegible], N.J. CALL [illegible] @ (609) [illegible]

(2) Munson 300 cu.ft. blenders, 104" dia. #TS-300GB, pkgd.
(1) Munson 110 cu.ft. blender, 90" dia. #700/110, pkgd.
(2) Munson 90 cu.ft. blenders, 80" dia. #7TS90, pkgd.
(2) 400 cu.ft. Gruendler ribbon blenders
(2) 215 cu.ft. Cleveland ribbon blenders
(2) Eirich 10' dia. intensive mix mullers, motorized pan and mullers
(2) Komline dbl. cone blenders; 320 cu.ft. (10' dia.), 69 cu.ft. (6' dia.)
(3) Gruendler hammermills, 150 HP, 1800
(2) Gruendler hammermills, 100 HP, 60 HP
(1) Mikro #8D atomizer pulverizer, 30 HP
(1) Mikro #4TH pulverizer, 50 HP
(2) Saw tooth brakers/crushers
(2) St. Regis baggers
(1) "Push-Pull" railcar unloading system
(25) Flexkleen, Dustex, etc., bag type dust collectors
(2) Box sifters
(1) Handling system w/(2) 2000 lbs. elevators, 80' powered roller conveyor, etc.
ALSO...laboratory with lab apparatus, tables, equipment, etc.; motor control center units; Gardner-Denver air compressor; etc., etc.

Poly Filter Co. 48" polypropylene filter press, (100) chambers, 2094 sq. ft., 87 cu. ft cake, hydraulic...1983, CALL!

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PRICE REDUCED

Triple effect evaporation system — Sodium Service two trains — 600 Ton/Day — Mfg. by Swenson, Monel Construction. Each train consists of a monitor tank with cone bottom; 60 HP Elbow Pump each effect and (3) 3300 Sq. Ft. Exchanges Per train; CS Shell and monel tubes. 40 PSI both sides at 290 Deg. F both sides.

SODIUM CHLORATE SILO SYSTEM

Consists of (6) 18' dia Silos at 6500 cu. ft. each, all interconnected with 12" dia screw conveyors, discharge system designed to convey 15 TPH of product at 80#/cu. ft., bucket loading system designed to handle 25 TPH of product at a rate of 40 FPM. Complete with rotary dryer, recycling system and rail loading station. New 1961.

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By Make, Model, and ACFM

Model	ACFM				
Allis Chalmers		Clark (Cont.'d)		Elliott	
VT204	1315	3M5	5350	46M8-6	17300
DHM3	1890	3M3-2	5800	42H2	18453
V-403	5900	2M6	5840	Ingersoll Rand	
V-402	9110	24X24	6750	MMGB-1220	170
DH4M	10400	3M-5	7608	MMGB1321	232
Brown Boveri		553B7	8361	MGA733	1775
VWO 609	20900	3H4	10620	CVS-12	2015
VW0609	21000	3M-6	10700	TYPE L AXI	2472
V907BD	34000	3H4	11950	CDP-416	2540
Carrier		3H4	11950	CDP-416	2540
18VT352	3350	4H4	19365	MGG633	2550
18P351	4180	4M3	20200	MTG633	2810
18W453	4740	M4	21600	900X20	2960
18W452	6270	4M6	21600	TYPE L-AXI	3510
18V470	7200	5H4	23850	CII40M2	4220
18PM451L	10700	4M	25600	MGG633	4730
18PM451Y	12000	6H4	39100	CVS14	5800
18WV502	17790	B5H	52180	MGGB	7270
18S601	31900	6M3	56500	MGA642	7500
Cooper Bessemer		6M3	98300	CVS-14	8750
RB9-8B	277	DeLaval		CVS-14	9360
RB9-8B	445	2C	3260	MGA-177	36150
RB9B	1048	6C148	5980	MMA-3100	54200
RB6B	3446	Demag		MMA-4100	57750
RC8B	3525	VK63	45100	Joy	
RF2B24	13100	Elliott		TA25V	2440
RE7S	18773	29M-9	3055	TA-30	3280
RE8-7S	30000	29MS-9	3055	TA-30	3280
Clark		18HV470	3360	GMSG12	10868
1M8	550	29MS9-8	4390	Rotoflow	
1M5	1110	29MS9-81	4390	60K	6755
1M9-8	1477	29MS9-8	4390	Worthington	
1M9-8	1477	29M7	4750	GUR-3S6	3980
2B	1611	29MS8-7	4750	GUR-4K2	7050
2M9	1966	40P	6610	VC706	11300
2M-7	2223	29M3	7093	DEMAG	24000
3M6	2403	38M8-4I	7450	York	
2M7	2490	38MS	9481	23268A	2830
1M8	2575	38M3-2	10700	CALL JACK BURCH	
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Bird 30"x 72, 40x60 Horz. S/S
Delaval MAPX-207 S/S
KRAUSE-MAFEI 18.5" pusher S/S (rebuilt)
Sharples P-3400, P-4000 S/S
Westfalia SAMR 5036 S/S 15 HP
SHARPLES AS-16, 16V SS Clarifier (Rbt.)

DRYERS
370 cu.ft. S/S Conical Vac. Dryers.
Spray Dryer, Bowen 30" lab, Niro 48" utility S/S
Bowen 4'6" # 2 Tower Spray Dryer S/S gas
Louisville 8x45 S/S rot. hot air steam

MIXERS
P/K 2, 10, 15, 75 cu. ft. S/S Tw. Sh. W/R
135 cu. ft. dbl. ribbon stl. jkt.
70, 120, 155, 255, cu. ft. S/S Dbl. Rib. jkt.
J.H. Day 7, 35 cu. ft. Nautas
B/P 50 gal. Stl. D/ARM Mixer Jkt. W/Drive
(2) Vrieco 100 cu. ft. S/S Nauta Mixers

FILTERS
FEINC 2x3, 5x7, S/S Rot. Vac. String
SPARKLER 450 sq.ft. S/S Horiz. tank sani.
Sperry 36x36 poly press 75 chambers
35, 50, 150, 300 sq.ft. Press Leaf S/S & STL
12", 18", 24", 42", P/F Presses C.I. poly or S/S
Niagara 342 Sq.Ft. Filter SS hor. tank
4'x20' Straight Line Filter SS 7.5HP w/access.

SPECIALS
2000 Gal. Pfaudler G/L Reactor 15 HP agit & Baffle
SHARPLES Mark 3 14' S/S perf. Autobasket
SHARPLES Tornadomatic 48x30 316 S/S
M/G Homog. 200, 1,000, 1,200, GPH
Simpson 3FS/S Jkt. Mix Muller
S/S TANKS 6000, 10,000, 12,000, & 29,000 gal.
Fitz, D-6 Mill Jkt. Chamber, 7 HP
300 G jkt. SS Groen kettle
(2) 12,000 Gal. FRP Vert. TANKS
Miro-Pulv. 1 SH S/S 5HP w/screw feed.

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Tanks: 250-1400 Gal. storage & mixing, S/S & fiberglass
5000 Gal. 304 S/S storage tank, vertical, closed, dished hds.
(2) Richmond 3000 Gal. S/S Reactors, 60/40 PSI, 60 HP 2-Spd.
Richmond 3000 Gal. S/S Reactor, 60/40 PSI, 20 HP.
(3) Pfaudler 30 Gal. S/S Reactors, 60/90 PSI, 1½ HP XP V/S.
Hercules 300 Sq. Ft. "Roto-Jet" Filter, 316 S/S, 60 PSI.
Jacobson 60SF-11 "Universal" Hammer Mill, 100 HP.
(2) Entoleter Type E/M "Centrimil", 48" Dia., 316 S/S, 150 HP.
Simpson "Rotex" model 661 Sifter, 316 S/S, single deck.
Fitzmill, 316 S/S, No. DKAS012, 20 HP.
Bird-Pitts Screw Dryer, 18" Dia. x 20' L., C/S, Jkt. trough.
Chemalox 200 KW Hot Oil Unit.
Chemalox 20 KW Hot Oil Unit (ALL XP)
Sterling 12 KW Hot Oil Unit.
Hockmeyer 60/25 HP High Speed Disperser S/S, XP #2 Spd.
(2) Premier model 8HS Sand Mills, 30 HP XP.
Morehouse-Cowles 12-30 & 10-25 Sand Mills, 40 & 25 HP XP.
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Abbe 11'x13' Continuous Steel Ball Mill, 60 HP.
Patterson & Abbe Ceramic-Lined Pebble Mills from 16"x21"+up.
Reliable 6"x12" Two Roll Mill, 5 HP.
10 Cu. Ft. C/S heavy-duty ribbon blender, jkt. 20 HP.
(3) Lotech S/S sanitary ribbon blenders, 12.25 Cu. Ft., 2 HP.
J.H. Day "Nauta" Blender, 21, Cu. Ft. 316 S/S, MBX
Votator: (3) 6"x48" L. Tubes, 316 S/S, 15 HP.
Dorr-Oliver "Web-Trol" 6'x8' Rot. Vac. Filter, 316 S/S.
Campbell 5-Gal. subsurface weigh-type filler, S/S, model F-2.
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Nichols-Niro 10 ft. Dia. Spray Dryer, 129 #/Hr., all S/S.
Baker-Perkins & Readco dbl. arm mixers; 2½ to 350 gal., C/S, S/S
Heat Exchanger 488 sq. ft., 304 S/S, 75/15 psi.
(2) Bets prebreaker, UNUSED Model PB-10, C/S, 20 HP
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BLENDER-200 cu. ft. Patterson-Kelley Twin Shell, C/S
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CENTRIFUGE-AS-16NF Sharples, 3HP, 15,000 RPM
CHILLER-150 ton Carrier, 19C6D7-5-3 Hermetic
COMPRESSOR-400 CFM @ 100 PSI Fuller C-60-60H, 100HP
COMPRESSOR-800 CFM @ 125 PSI Clark ICA-6, 150HP
CONDENSOR-165 sq. ft. Karbate, 75/75 PSI
CONDENSOR-278 sq. ft. 304 S.S. 175/175 PSI UNUSED (2)
CONDENSOR-398 sq. ft. 304 S.S. 150/150 PSI UNUSED (4)
CONDENSOR-1636 sq. ft. 316 S.S. 150/150 PSI (3)
DRYER-5 cu. ft. Patterson-Kelley Conical S.S.
DRYER-20 cu. ft. Economy Conical C/S
EVAPORATOR-1 sq. ft. Rodney Hunt 316 S.S. w/Condenser
EVAPORATOR-6.54 sq. ft. Rodney Hunt, 316 SS System
FILTER-5'6"x8' Bird-Young 304ELC, Rot Vac
FILTER-7"-30" Shriver & Sperry units
KETTLE-50 gal. Mueller S.S. with Double Motion Agit.
MILL-SH, 2TH, 4TH Mikro Pulverizers
PROCESSOR-5 10 cu. ft. P.K. V-Type S.S. Jkt. Vac. 550# (4)
REACTOR-750 gal. glass lined Pfaudler 100 FV/90 (2)
REACTOR-2000 gal. C/S & S.S. 15/15 PSI (2)
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-Readco Sigma Blade Mixer 10 gal. SS Dual Level (Like New)
-Readco 5 gal. SS jktd. vac. mixer 5 HP
-Ross 10 gal. Planetary Mixer SS
-Baker Perkins 300 gal. Sigma Blade jktd. vac. mixer
-Readco 3 gal. SS Sigma mixer, jktd.
-Patterson Kelly 1500 cu. ft. CS blender 75 HP
-Paul O. Abbe 90 cu.ft. SS/sanit. jktd. vac. blender 50HP
-Nauta Mixer 70 cu.ft. SS 10 HP (2)
-Devine 100 cu.ft. Dble Cone Blender, C/S
-Baker Perkins 150 gal. C/S jktd vac. flusher

BLENDER—RIBBON

-Abbe 40 cu. ft. SS clad ribbon blender
-Strong-Scott 200 cu.ft. CS ribbon blender
-J.H. Day 40 cu.ft. Ribbon Blender, S/S (3)

FILTERS

-Elmco 4x12 Belt Filter
-Sparkler Filter Mdl #18-D-4 SS jkt./ 33D12/ SS 8-6
-U.S. Autojet filter SS 60 sq. ft.
-Hercules Filter 500 sq.ft. 316 SS
-Bird (Plennevis) Filter SS, 12" wide x 17' long
-Sperry 42" Plypro Filter Press 48 Chambers
-Shriver 36" ALP 316-SS, 41,48 Chambers (2)
-Evirex SS Rotary filters 6 x 6

FILTERS—PRESSURE LEAF

-750 sq.ft. U.S. Autojet, Mdl #750, 316 SS
-Pronto Filter SS 30" Dia, 450 psi
-Industrial Filter 100 sq.ft. Type 122 ID 31 Model OMO
-Enzinger leaf filter SS 360 sq.ft.

DRYERS

-Strong Scott Rotary Vac. Dryer SS 3'x12' Solidaire
-Aeromatic Fluid Bed Dryer Lab. Model #ST-15
-Fitzpatrick Fluid Bed Dryer SS Lab Model #75
-Jeffrey Fluid Bed Dryers 2'x20' SS - (2) Available
-Pfaudler Conical vac. dryer G/L 72 cu. ft. complete system
-D & W Rotary vac. dryer, 316 SS, 2'x 7'
-Patterson-Kelly 3 cu.ft. twin shell vac dryer SS
-Stokes vac shelf dryers 48.9 sq.ft. (7)
-Pfaudler 2.6 cu.ft. G/L dbl. cone vac. dryer
-Standard Hersey 4'x30' Rotary dryer SS
-Bowen Spray Dryers 7½' & 6' SS
-Aeromatic fluid bed S.S. dryer Model 1006T 20
-Patterson-Kelley 5 cu.ft. SS Conical Vac Dryer
-Stokes 5'x30' Rotary Vac Dryer, Jktd, SS
-Gemco dbl. cone vac dryer 10 cu. ft. SS
-Patterson Kelley Twin Shell vac. dryer 75 cu. ft.

NEW ARRIVALS

-Chemetron Heat Exchanger Scrape Wall 9 sq. ft.
-Tolhurst Centrifuge 26" 316 SS perf. basket
-Sier SS Filter Presses 18" (5)
-Sharples Centrifuge 12" SS solid bowl w/skimmer (2)
-Cowles dissolver 50 HP, 30 HP, 20 HP
-Schold Shot Mill 304 SS jktd. 100 HP (2)
-Chromalox Hot Oil Heaters 20 & 40 KW complete system UNUSED
-Patterson Kelly 30 cu. ft. twin shell blender jktd SS w/int. bar
-Patterson 3'x4' jkt. Ball-Mill
-Pk 1 cu. ft. Twin Shell SS 500 lb. Dens.
-Mateer Filler Model No. 33A Auger Type, SS/sanit
-Patterson Kelly 40 cu. ft. Twin Shell Blender SS with Liquid/Solid Bar
-150 cu. ft. Double Cone Blender
-Patterson Kelley Twin Shell 1 cu. ft. vac. processor SS
-Alpine Seive Model # A-32-100 LS
-300 gal. SS Dispersion Tank (50)
-Reitz disintegator SS 5 H.P. 865 R.P.M.
-Autoclave 200 gal. SS 115/350
-Funda Filter 4' dia., SS, jktd. w/20 HP Drive
-SS Kettles 400, 300, 200, 150 (25)
-Artisan 1 sq. ft wiped film evaporator SS complete system
-Ross 15 gal. SS jktd. mixtruder 7½ HP Mdl. AMK 15
-Micro Atomizer SS 5HP XP Mdl. #5MA
-7500 gal. Fiber Glass Tank (8)

CENTRIFUGES

-Bird Centrifuge CS 40" x 60" Solid Bowl w/drive
-Bird Centrifuge CS 18"x28" Contour Bowl (UNUSED)
-Bird 36"x50" 347SS Contour Bowl
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-Simpson Mueller 6"x5" size 2 VD mixer 20 HP
Sweco Separator 48" 30" 24" 18" SS
-Greerco Colloid Mill, 3 HP & 5HP

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-Pfaudler 2000 gal. jktd reactor 150 psi/75 psi
-Norwalk 3000 & 750 gal. SS reactor dimple jktd FV/50
-Pfaudler 3200 gal G/L Reactor 90/90 psi Unused
-Downington 1500 gal. Monel Clad reactor 55/70 psi
-13,500 gal. 304 Elc Dim., Jktd. Reactor, 30/100 psi
-Pfaudler 500 gal. G/L jktd, vac. reactor

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CMR MARKETPLACE

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Water Bill Veto

Continued from Page 7

dential signature on the bill — passed in the final days of the 99th Congress — would have been seen as President Reagan's "first gesture of cooperation" with the new Democratic Congress.

Sen. Moynihan said he will reintroduce the same legislation when Congress convenes in January and "we'll pass it in a spirit of confrontation" if necessary.

Rep. James Howard (D-N.J.), a chief sponsor of the legislation in the House, said he would reintroduce the bill "word for word on the first day of the next Congress," and predicted prompt passage.

"If he was dissatisfied with the cost, then he should just wait to see what the Democratic Congress comes up with next year," said Sen. Robert T. Stafford (R-Vt.).

"The President was obviously acting on very bad advice in vetoing this bill," he added. "Every state in the union wants to see a continuation of the Clean Water Act and I'm sure all the new Republican governors will be clamoring for passage as well as all the other governors."

In addition to providing money for construction of local sewage treatment systems, the bill would have initiated a $400 million program to control fertilizer and pesticide runoff from farmlands, tightened controls on toxic pollutants, and provided funding for various other activities to clean up the nation's waters.

Sources say the President was urged to veto the bill by OMB Director James Miller, White House chief of staff Donald Regan and members of the White House domestic policy staff.

Their advice was based on the amounts that would have been appropriated for sewage treatment plants and the continuation of the Federal grant program beyond 1990.

But the President also noted the bill authorizes some new programs for $500 million "that my administration has strongly opposed." Among them, he said, is "reinstatement of a Federal assistance program to pay for local plans to control diffuse sources of pollution."

"I must emphasize that my action will have no impact on the conduct of water pollution control programs" already in place, President Reagan added.

"It is astounding that the President would veto legislation that is at the top of the public's agenda," said Sharon Newsome, director of legislative affairs for the National Wildlife Federation. "Now all Americans will have to wait for cleaner water."

President Reagan, who reported "remarkable progress in the massive national cleanup effort," said the bill's $18 billion price tag would increase outlays by as much as $10 billion over the projections of his 1987 budget.

In working with Congress next year, the President said he would support several programmatic changes made by the bill, including expanded Federal enforcement authorities and an easing of the regulatory and financial burden on cities in dealing with stormwater discharges.

Dow's Oreffice

Continued from Page 5

grades rather than commodities. It was noted at the meeting that a 3-cent-per-pound advance in polystyrene prices on October 1 is holding, and that a further advance of 2 cents has been posted for the first of December.

The 60-year-old Dow CEO noted that under company by-laws he will be retiring as president and CEO toward the end of next year, and that the board has asked him to stay on as chairman, without an operating title.

Mr. Oreffice said that his successor would be one of the executives on the podium with him. These include Hunter Henry and Robert Keil, executive vice-presidents; Frank Popoff, executive vice-president; and Joseph Temple, senior vice-president.

Mr. Keil, who has financial and planning responsibilities, said that there was no immediate need for new basic chemical facilities, despite the high operating rates. Incremental expansion of existing plants would take care of foreseeable needs. However, another grass roots plant would be built "within the next five years," he said.

Mr. Henry reported that supplies of caustic soda are finally coming into balance, and that prices are edging up. He said that Dow's overall research and development budget is running at $600 million "to keep the company on the leading edge of process technology."

Mr. Popoff said that Dow's operations in Japan are prospering. Two years ago, Asahi-Dow, a basic chemical joint venture, was dissolved and Dow has since replaced it with wholly-owned operations.

Mr. Popoff also indicated that the company has been able to keep most of the benefits from lower oil prices, owing to the improved supply balances in upgraded products and what has been a very depressed state of product pricing.

One indication of tightening supplies of basic chemical, he said, is the withdrawal of competitors from certain foreign markets. Dow has been picking up the market share that capacity-tight producers have abandoned, he said.

Mr. Oreffice noted that the Texize operation has become a $550 million business, led by its heavy-duty cleaner, and Dow is taking it into countries around the world.

According to Mr. Oreffice, polystyrene, Dow-Corning Corporation (jointly owned venture with Corning Glass Works) and third-world markets have been consistent early indicators of the state of the world economy. All three of these indicators are improving, he said.

Grace Aids Titanic Search

Buoyancy materials developed by W.R. Grace & Co. assisted researchers in the discovery and subsequent exploration of the Titanic. Both the manned submarine Alvin and the self-propelled robot "Jason, Jr." contain specially designed one-cubic-foot blocks of Grace's syntactic foam that helped to support the underwater submersibles at depths of up to 12,500 feet.

Grace's foam provides both structural strength and buoyancy to help offset the weight of heavy metal and electrical parts. Sandwiched between the outer fiberglass shell and the pressure hull, the foam blocks keep the small sub from dropping like a stone to the ocean floor. They also help the mini-sub to maintain its balance.

As heavier equipment was required to delve to greater ocean depths, researchers at the Woods Hole Oceanographic Institution needed a buoyant material for their research vessels. In October, 1980, the Alvin began to exceed depths of 13,000 feet, but it required larger and heavier batteries.

The solution to the problem of bulky equipment was provided by Grace's "Eccofloat" material. It is a special epoxy resin formulation containing millions of air-filled glass balloons that can be made small enough for thousands to fit in the palm of your hand—or each one can be as large as a baseball. These balloons prevent the sub (or any structure) from sinking.

Although the Alvin is designed to withstand depths of 14,000 feet, the synthetic foam can take pressure of up to 20,000 feet. According to Dr. Robert D. Ballard, leader of the Titanic exploration, "Over 50 percent of the vehicle is syntactic foam without which we couldn't dive to those depths."

Undersea exploration is just one of many uses for Grace's "Eccofloat" product, which will be used by the entire fleet of submersibles being developed by the Woods Hole Oceanographic Institution in Massachusetts.

Grace's Emerson & Cuming unit of Canton, Massachusetts, has been manufacturing and marketing offshore buoyancy systems since 1968 and is the world leader in such material.

Although Grace provides syntactic materials for undersea exploration, the company's line of flotation products was originally devised to provide buoyancy for offshore drilling rigs.

CHEMICAL IMPORTS

Continued from Page 35

POLYTETRAFLUOROMETHYLENE Ausimont USA 100 dms (12809 lbs) (Ever Superb) Leghorn, 10/9.
POLYTETRAFLUOROETHYLENE Montedison 2000 dms (16432 lbs) (Ever Superb) Leghorn, 10/9.
POLYTETRAFLUOROETHYLENE Sumitomo of America 1680 bgs (51753 lbs) (Verrazeno Bridge) Kobe, 10/13.
POLYTETRAHYDROFURAN 1 tnk (38977 lbs) (Clarence) Bremerhaven, 10/9.
POLYVINYL ALCOHOL PVA Perry Chemical 770 bgs (38501 lbs) (Ever Linking) Keelung, 10/6.
POTASSIUM BICHROMATE American Chrome & Chemicals 400 bgs (45309 lbs) (Nurnberg Expess) Greenock, 10/8.
POTASSIUM CHLORATE T R America Chemicals 160 dms (47287 lbs) (Americana) Barcelona, 10/14.
Universal Match 192 dms (48984 lbs) (Numberg Express) Bremerhaven, 10/8.
POTASSIUM CYANIDE GRANSOL Degussa 720 bgs (79145 lbs) (Numberg Express) Bremerhaven, 10/8.
POTASSIUM FERROCYANIDE Degussa 720 bgs (39857 lbs) (Numberg Express) Antwerp, 10/8.
POTASSIUM SORBATE GRANULAR Total Port Clearance 200 dms (22201 lbs) (Zim Montreal) Osaka, 10/9.
PROPYL ADIPATE 40 dms (17196 lbs) (Sea Land Express) Rotterdam, 10/6.

R-S

RIBOFLAVINE Amalgamated Metal 40 dms (3086 lbs) (American Washingt) Hong Kong, 10/6.
RICE STARCH REMYLINE AC BDP Intl 1600 bgs (90300 lbs) (Gina S) Antwerp, 10/10.
ROCHELLE SALT FINE GRANULAR Tartaric Chemicals 800 bgs (30920 lbs) (Americana) Genoa, 10/14.
ROCK SALT 1 bks (43210160 lbs) (Concorde) Pto Empedocl, 10/23.
ROSEWOOD OIL Herje 6 dms (2533 lbs) (Zeus) Rio D Janeiro, 8/20.
RUTIN NF XI Byron Chemical 20 dms (2535 lbs) (Alison) Fortaleza, 10/11.
Karl Schroff 20 dms (2535 lbs) (Alison) Fortaleza, 10/11
SASSAFRAS OIL 50 dms (25904 lbs) (Alison) Santos, 10/11.
SEBACIC ACID Fallek Chemical 600 bgs (33466 lbS) (American Washingt) Kobe, 10/6.
SODIUM BICARBONATE Marubeni America 912 bgs (47275 lbs) (Alison) Salvador, 10/11.
SODIUM BIFLUORIDE Mitrans 1440 bgs (115499 lbs) (New Jersey Maru) Kobe, 10/6.
SODIUM BROMATE Ameribrom 564 dms (157496 lbs) (Zim New York) Haifa, 10/8.
SODIUM CYANIDE Degussa 400 dms (87055 lbs) (Nurnberg Express) Bremerhaven, 10/8.
Degussa 720 bgs (79145 lbs) (Numberg Express) Bremerhaven, 10/8.
SODIUM DODECYL SULPHATE President Container Line 6 bxs (476 lbs) (Dart Americana) Felixstowe, 10/6.
SODIUM ERYTHORBATE PMP Fermentation Products 320 dms (38095 lbs) (Ming Peace) Kobe, 10/6.
SODIUM FLUORIDE COARGE GRANULAR Daniel F Young 771 bgs (39500 lbs) (Zim Montreal) Osaka, 10/9.
SODIUM FORMALDEHYDE SULFOXYLATE Diamond Shamrock 440 dms (78568 lbs) (Ming Peace) Kaohsiung, 10/6.
SODIUM GLUCONATE PMP Fermentation Products 800 bgs (40478 lbs) (Ming Peace) Kobe, 10/6.
SODIUM HYDROXIDE J T Baker Chemical 343 dms (40001 lbs) (Sea Land Express) Bremerhaven, 10/6.
SODIUM METABISULPHITE Russell Chemicals 140 bgs (15714 lbs) (Jadran Express) Genoa, 10/6.
SODIUM METAPERIODATE A N Deringer 16 crt (3033 lbs) (Dart Americana) Felixstowe, 10/6.
SODIUM METASILICATE VEGOMET UDC Browning Chemical 800 bgs (88184 lbs) (Saudi Makkah) Leghorn, 10/11.
SODIUM MONOCHLORACETATE 702 bgs (89507 lbs) (Numberg Express) Antwerp, 10/8.
SODIUM PERBORATE FMC 34680 bgs (93698 lbs) (Lica Maersk) Valencia, 10/9.
SODIUM SULPHITE ANHYDROUS Russel Chemicals 160 bgs (17972 lbs) (Jadran Express) Genoa, 10/6.
SOLAR SALT Diamond Crystal Salt 1 bks (62926469 lbs) (Elend M) Fos, 10/10.
SULFAMETHAZINE RAW MATERIAL American Shpg 180 dms (19841 lbs) (Jadran Express) Rijeka, 10/6.
SULFAMIC ACID American Intl Chemical 1800 bgs (90477 lbs) (Ming Peace) Keelung, 10/6.
Atlas Intermodal Transport 900 bgs (45269 lbs) (Ming Peace) Keelung, 10/6.
Kingsley & Keith 700 bgs (39198 lbs) (Verrazano Bridge) Kobe, 10/13.
SULFAMIC ACID AMMONIUM SULFAMATE Atlas Intermodal Transport 1800 bgs (90539 lbs) (Ming Peace) Keelung, 10/6.
SULFAQUINOXALINE B VET CO85 A J Murray 60 dms (2756 lbs) (Wladyslaw Sikorski) Bremerhaven, 10/14.
SULFATE MONOHYDRATE ICD Group 677 bgs (75221 lbs) (American Washingt) Kobe, 10/6.
SULFOSUCCINATE SD Henkel 2 dms (243 lbs) (Clarence) Rotterdam, 10/9.

T-Z

TALC Dynamic Intl 70 bxs (1345 lbs) (Lloyd Pacifico) San-, 10/8.
TARTAR EMETIC Tartaric Chemicals 108 dms (12937 lbs) (Americana) Genoa, 10/14.
TEA OIL Scandinavian Design 2 pkg (22 lbs (Clarence) Bremerhaven, 10/9.
TERTIARY DODECYL POLYSULFIDE 76 dms (35521 lbs) (Ever Superb) Fos, 10/9.
TETRA BUTYL TIN CRUDE Interstab Chemicals 26 dms (12782 lbs) (Numberg Express) Hamburg, 10/8.
THIOACETAMIDE ACS Davos Chemicals 2 dms (243 lbs) (Ever Linking) Osaka, 10/6.
THIONYL CHLORIDE Uniroyal 1 tnk (39991 lbs) (Gina S) Antwerp, 10/10.
THIOUREA DIOXIDE H & C Ind 50 dms (681 lbs) (Zim Montreal) Yokohama, 10/9.
THYME LEAVES William E Martin 280 bgs (30884 lbs) (Almudena) Valencia, 10/4.
TITANIUM DIOXIDE AWW Kyle 720 bgs (41072 lbs) (Sea Land Pioneer) Algeciras, 10/8.
N L Ind 800 bgs (41491 lbs) (Clarence) Rotterdam, 10/9.
N L Ind Chemical 1600 bgs (82717 lbs) (Dart Americana) Antwerp, 10/6.
WTC Air Freight 4800 bgs (207453 lbs) (Clarence) Rotterdam, 10/9.
Huxley Raw Material 760 bgs (39590 lbs) (Wladyslaw Sikorski) Bremerhaven, 10/14.
Huxley Raw Material 760 bgs (39590 lbs) (Wladyslaw Sikorski) Bremerhaven, 10/14.
D N Lukens 640 bgs (33201 lbs) (Ever Superb) Leghorn, 10/9.
Sumitrans 60 dms (36045 lbs) (Ever Linking) Osaka, 10/6.
N L Ind 1800 bgs (92858 lbs) (Atlantic Star) Rotterdam, 10/6.
N L Ind 2400 bgs (123812 lbs) (Sea Land Express) Rotterdam, 10/6.
TOLUENE Amerada Hess 76023 brl (20662000 lbs) (Baltimore) St Croix, 10/7.
TRIALLYL ISOCYANURATE TALC Carrano & O'Neill Shpg 50 dms (24581 lbs) (Ming Peace) Yokohama, 10/6.
TRICHLORO ISOCYANURIC ACID 250 dms (78814 lbs) (Ever Linking) Osaka, 10/6.
TRICHLOROACETIC ACID TECHN 150 dms (16158 lbs) (Numberg Express) Bremerhaven, 10/8.
TRIMETHYLENE CHLOROBROMIDE Ariel Maritime Group 16 dms (8984 lbs) (Numberg Express) Antwerp, 10/8.
ULTRAMARINE BLUE Hilton Davis Chemical 400 bgs (22597 lbs) (Clarence) Rotterdam, 10/9.
Elco Shpg 880 bgs (41546 lbs) (Gina S) Felixstowe, 10/10.
Whittaker Clark & Daniels 720 bgs (41310 lbs) (Sea Land Express) Rotterdam, 10/6.
UREA FORMALDEHYDE MOULD COMPOUND 855 mix (0 lbs) (Zim New York) Haifa, 10/8.
1640 bgs (90388 lbs) (Zim New York) Haifa, 10/8.
WAX Ciba Geigy 20 dms (9812 lbs) (Numberg Express) Hamburg, 10/8.
YELLOW ANTHOSIN 84 dms (5185 lbs) (Clarence) Rotterdam, 10/9.
YELLOW PHENOLPHTHALEIN PHENLAX Ceres Chemicals 59 dms (12683 lbs) (Clarence) Rotterdam, 10/9.
ZINC PYRITHIONE 157 dms (44740 lbs) (Aldebaran) Bremen, 10/5.
ZIRCONIUM CARBONATE PASTE F B Vandegrift 180 dms (41667 lbs) (Gina S) Felixstowe, 10/10.
ZIRCONIUM OXIDE Mediterranean Shpg 28 plt (78704 lbs) (Gina S) Antwerp, 10/10.

Solvent Disposal

Continued from Page 4

ing the small quantity limit will not come under the rule until 1988.

As part of the new disposal rules, which were required under the 1984 Hazardous and Solid Waste Amendments to the Resource Conservation and Recovery Act, EPA also set treatment standards for each of 16 dioxin and 25 spent solvent compounds. This is the first group of 450 chemicals that must be covered by 1989.

"The new restrictions on the land disposal of solvents and dioxins represent a significant turning point in hazardous waste management," says EPA Administrator Lee M. Thomas.

"These rules will substantially reduce long-term public health risks by requiring treatment of hazardous wastes to reduce or eliminate their toxicity before land disposal," he says.

The rules are the first of many that will end the land disposal of untreated hazardous wastes over the next five years. In the 1984 RCRA amendments, Congress required that wastes be treated to remove their most toxic components, allowing only the treatment residue to be disposed of on land.

EPA originally proposed the rules on January 14, but the agency was forced to revise them after a number of lawmakers complained that EPA was ignoring the intent of Congress when it enacted the general prohibition on land disposal of untreated chemical wastes.

The agency proposed to allow untreated wastes to be deposited in landfills so long as leaks of hazardous materials pose no danger to human health and the environment within 500 feet of a landfill.

The revised rules allow virtually no migration of leachate from landfills and the new standards are based on the actual performance of the best demonstrated available treatment technology rather than on a risk-based approach.

Chemical Manufacturers Association says it supports EPA's overall approach to rules on land disposal restrictions, despite the enormous cost industry will pay to comply.

However, CMA says it believes EPA is being overly protective because setting standards based on treatment technologies may be unnecessarily stringent since higher levels may still be safe in many cases.

EPA estimates the total yearly costs for restricting land disposal of all 450 RCRA regulated wastes will be $1.6 billion, with the refining industry accounting for 17 percent ($272 million) and the chemical industry paying 57 percent ($912 million).

CFC's Cap Now Planned

Continued from Page 7

produced in smaller quantities, are used in fire extinguishers.

The shift in the government's position reflects a recent change in the industry's stance. In September, the major trade group representing US CFC producers said it would support a "reasonable global limit on the future rate of growth of fully halogenated CFC production capacity."

The Alliance for Responsible CFC Policy also said it would back production limits, not just limits on growth, if warranted by scientific evidence. E.I. du Pont de Nemours & Co., the largest US CFC producer, has already come out in favor of worldwide controls on CFC production.

The administration's proposal of a worldwide freeze and gradual elimination of the ozone-destroying compounds also conforms with the chemical industry's long-standing contention that the problem is global in nature and cannot be solved by unilateral US regulatory action.

Although the administration has been saying further study is needed, sources say new information contained in a preliminary EPA report helped persuade White House officials to approve the approach recommended by EPA Administrator Lee M. Thomas.

The draft government study concludes that up to 40 million skin cancer cases and 800,000 deaths may occur in Amerians living today and those born over the next 88 years if release of the chemical gases continues to increase in the decades ahead.

In addition, the report warns that the gases would contribute to a greenhouse-like warming of the atmosphere that could lead to as much as a 32-inch to 38-inch rise in the oceans by 2075 with resulting massive coastal flooding.

While emphasizing there is considerable uncertainty in the estimates, the study says the extra skin cancers would result from significant erosion of the atmospheric ozone radiation shield by chlorine from CFCs and halons. This would allow increased amounts of harmful ultraviolet radiation from the sun to reach the earth's surface.

The study still must be reviewed by EPA's scientific advisory board and is subject to revision. Until the review process is completed, EPA says the study will not represent the official views of the agency.

But EPA officials say that if the review supports the same results, controls would have to be quickly placed on CFC production.

The EPA study made its predictions on the assumption that the world's production of CFC's would increase at the rate of 2.5 percent this year. The agency assumed for the sake of the study that no actions will be taken to regulate future release of the chemicals.

But Kevin Fay, director of the industry alliance, says the 2.5 percent annual growth rate figure is unrealistically high. He says the industry favors some growth, but not that much and is encouraging efforts to recycle the gases and otherwise reduce emissions.

The study says that if the gases increased at a rate of 1.2 percent per year, the estimates of skin cancer cases and deaths would be lowered by more than 90 percent. If the rate increased at 3.8 percent annually, the risks could increase by more than 400 percent.

The study assumes that a 2.5 percent annual increase in the release of CFC's would lead to an average 19 percent reduction of the ozone layer by 2075 and 30 percent by 2100. The ozone depletion would be most severe at latitudes of 40 degrees N and higher.

Du Pont and other CFC producers halted research on alternative products in the early 1980's when the Reagan administration eased the regulatory pressure. Du Pont now says it would take about five years to develop adequate substitutes.

ADVERTISERS' INDEX

CHEMICAL PROFILE

ETHANOLAMINES

November 10, 1986

SUPPLY

PRODUCER	CAPACITY*
Dow, Plaquemine, La.	150
ICI, Bayport, Tex.	40
Texaco, Port Neches, Tex.	240
Union Carbide, Seadrift, Tex.	250
Total	680

*Millions of pounds per year of mono-, di-, and triethanolamines. Production is split almost evenly among the three. Dow's Midland, Mich. plant, rated at 25-million pounds per year, currently produces isopropanolamines. Olin placed its 40-million pound Brandenburg, Ky. facility on stand-by last July, but continues to market material. Profile last published 11/21/83; this revision 11/10/86.

DEMAND

1985: 540 million pounds; **1986:** 525 million pounds; **1990:** 580 million pounds (includes exports).

GROWTH

Historical (1976-1985): 7.1 percent per year; **future:** 2.5 percent per year through 1990.

PRICE

Historical (1952-1986): High, 52½c. per pound (MEA); 53½c. per pound (DEA) 54½c. per pound (TEA-85 percent), tanks, frt. alld.; low, 13c. per pound (MEA); 12½c. per pound (DEA); 16c. per pound (TEA-85 percent), same basis. **Current:** 33c. per pound (MEA); 34c. per pound (DEA); 35c. per pound (TEA-85 percent), same basis.

USES

Domestic, 65 percent (detergents, including textiles, personal care products, and other surfactants, 35 percent; natural gas conditioning and petroleum use, 30 percent; metal working, 12 percent; textiles, 12 percent, other, including agricultural intermediate and cement grinding aids, 11 percent); exports, 35 percent.

STRENGTH

Exports have been posting large, steady growth for the past several years. This year's surge from 170 million pounds to a projected 183 million pounds can be partly attributed to the weaker dollar, and increased demand from Europe. Domestic surfactant applications, particularly in liquid laundry detergents, and personal care products are performing well.

WEAKNESS

The depressed oil and gas industry has caused a very large cutback in ethanolamine sales for treating sour gas. Not only is volume down, but gas producers are concentrating production on more economical sweet gas, thereby doubly reducing ethanolamine demand. Prices, dragged down by tumbling ethylene values, have fallen 4c. per pound since January 1, 1986. The metal-working business has been hurt by widespread industry rationalizations, and textiles have been battered by imports.

OUTLOOK

The surfactants business is projected to grow well above the GNP through the decade, but there's no telling when the natural gas business will rebound. Olin's idling of its Brandenburg plant has improved the domestic supply-demand balance, and Carbide has been, and will continue, to increase its internal demand for monoethanolamines for the production of ethyleneamines.

BOOKSHELF

When Markets Shake

This book* explores a problem facing today's top managers — how to manage effectively when traditional ground rules crumble and fall. The author, a Harvard Business School professor who for more than twenty years has researched managerial responses to changing strategic and economic forces, takes the petrochemical industry as his model and deals with that industry worldwide.

Concentrating on the relationship of major corporations with their governments, the book correlates management responses to the changing economic climate and the effects of national policy and regulations on its decisions.

The volume begins with an overview of the petrochemical industry of the 1980's as it plunged into an economic crevasse of excess capacity and severe losses (with no expected decline in competition). Common developments and patterns are drawn from six industrialized countries, highlighting similarities which transcend national boundaries.

Utilizing these elements, managerial strategies are extracted which it is felt have been used successfully in dealing not only with a changing marketplace, but also with the restrictions of the political environment.

Following this overview, the author puts his findings into a three-phase restructuring agenda for top management. It includes: preparation — the need for a cogent strategic plan for both short- and long-term changes; concentration — optimizing a company's opportunities through mergers, swaps, takeovers and acquisitions; and rationalization — the often painful process of modifying existing structures in order to carry out the agenda.

To aid managers in their planning, he also stresses the need for reforms in public policy toward industry, particularly in regard to cooperative actions.

The petrochemical industry is not a unique case, but foreshadows what could be the future for many global industries. If managers can learn from their petrochemical counterparts, they can prepare themselves for that time when their own markets quake.

*WHEN MARKETS QUAKE. By Joseph L. Bower. Cloth. 6½ X 9½ inches. 256 pages. Harvard Business School Press, Harvard Business School, Boston, Mass. 02163. $19.95.

Hazardous Waste

This guide* to the Resource, Conservation & Recovery Act emphasizes both the current and the future impact of the 1984 amendments to the act, which greatly expand and strengthen the national regulatory program.

The book covers the full scope of RCRA, describing and analyzing the controls on hazardous waste generation, management, treatment, storage, transportation and export.

The authors present information on a wide variety of regulatory issues, providing answers to a number of important questions. What is hazardous waste, and which wastes are hazardous? How will the regulations affect small-quantity generators, a group previously exempt from controls? Which wastes are restricted from land disposal? What is involved in the permitting process for generators, transporters, treatment, storage and disposal facilities? What are the requirements for environmental monitoring and cleanup?

The book examines a wide range of topics from the history of the program to the requirements for leaking underground storage tanks, from understanding the nuances and distinctions between waste management, waste recycling and production activities to the relationship between state and Federal RCRA programs.

Full discussions are devoted to such topics as qualifying for interim status when subject to the new requirements; public participation in the permitting process; RCRA regulations for insurance, financial responsibility, and contingency plans; and the wastes subject to RCRA in the near future.

*HAZARDOUS WASTE REGULATION — THE NEW ERA: AN ANALYSIS AND GUIDE TO RCRA AND THE 1984 AMENDMENTS. By Richard C. Fortuna and David J. Lennett. Cloth. 6 X 9 inches. McGraw-Hill Book Company, 1221 Avenue of the Americas, New York, N.Y. 10020. $59.50.

MEETINGS CALENDAR

November 10, 1986

THIS WEEK

AMERICAN PETROLEUM INSTITUTE, annual meeting, Houston, Tex., Hyatt Regency. November 9-11

DRY COLOR MANUFACTURERS ASSOCIATION, technical seminar, requirements under the Toxic Substances Control Act. Hilton Gateway Hotel, Gateway Center, Newark, N.J., November 12

FRAGRANCE MATERIALS ASSOCIATION OF THE UNITED STATES, 10th international congress of essential oils, fragrances and flavors, Omni Shoreham Hotel, headquarters hotel, Washington, D.C., November 16-20

K-'86, 10th international trade fair for plastics and rubber Dusseldorf, West Germany, November 6-13

THIS MONTH

FERTILIZER ROUND TABLE, Sheraton Inner Harbor Hotel, Baltimore, Md., November 17-19.

CHEMICAL MANUFACTURERS ASSOCIATION, chemical industry conference, Palmer House Hotel, November 17-18, Chicago, Ill.

DRUG, CHEMICAL & ALLIED TRADES ASSOCIATION, Fall luncheon, Waldorf-Astoria Hotel, New York, November 19.

EUROPEAN PETROCHEMICAL ASSOCIATION, Intermodal transport seminar, Frankfurt Sheraton Hotel, Frankfurt, West Germany, November 20-21.

LATIN AMERICAN PETROCHEMICAL ASSOCIATION, sixth annual meeting, Rio Palace Hotel, Rio de Janeiro, Brazil, November 23-25.

DECEMBER

CHEMICAL SPECIALTIES MANUFACTURERS ASSOCIATION, 73rd annual meeting, Marriott's Harbor Beach Resort, Fort Lauderdale, Fla., December 7-11.

NATIONAL ASSOCIATION OF CHEMICAL DISTRIBUTORS, 15th annual meeting, Ritz-Carlton-Naples Hotel, Naples, Fla., December 2-6.

SALES ASSOCIATION OF THE CHEMICAL INDUSTRY, annual Christmas party, New York Hilton Hotel, New York, December 18; education committee, seminar, "The Psychology of Selling." Treadway Inn, Saddle Brook, N.J., December 18.

LATER ON

AMERICAN INSTITUTE OF CHEMICAL ENGINEERS, center for chemical process safety, international conference on chemical safety issues, Omni Shoreham Hotel, Washington, D.C., February 3-5.

CHEMICAL MARKETING RESEARCH ASSOCIATION, Houston Meeting; "The US Chemical Industry-Responding to Change." Westin Galleria Hotel, Houston, Tex., February 4-5, 1987.

CHLORINE INSTITUTE, Winter meeting, Mayflower Hotel, Washington, D.C., March 15-19.

DRUG, CHEMICAL & ALLIED TRADES ASSOCIATION 61st annual dinner, Waldorf-Astoria Hotel, New York, March 19.

FERTILIZER INSTITUTE, 1987 annual meeting, Marriott Orlando World Center, Orlando, Fla., February 13

INSTITUTE OF GAS TECHNOLOGY, 11th annual symposium on energy from biomass and wastes, Hilton Royal Plaza, Walt Disney World Village, Buena Vista, Fla., February 2-6.

SOAP AND DETERGENT ASSOCIATION, 60th Annual Meeting and Industry Convention. Boca Raton Hotel and Club, Boca Raton, Fla., January 29-February 1987.

SOCIETY OF THE PLASTICS INDUSTRY, 42nd annual conference of the reinforced plastics and composites Institute, Cincinnati Convention & Exhibition Center Cincinnati, Ohio, February 2-6.

THE FERTILIZER INSTITUTE, 1987 Annual Meeting Marriott Orlando World Center, Orlando, Fla., February 1-3, 1987.

JOBS & PEOPLE JOBS & PEOPLE

Michael R. Schimmenti, who has been named president of Griffin International Corporation. He joins Griffin International from his previous position as vice-president of the solvents and ag chemicals division of Exxon Chemical Americas in Houston.

Air Products Names Manager and Director

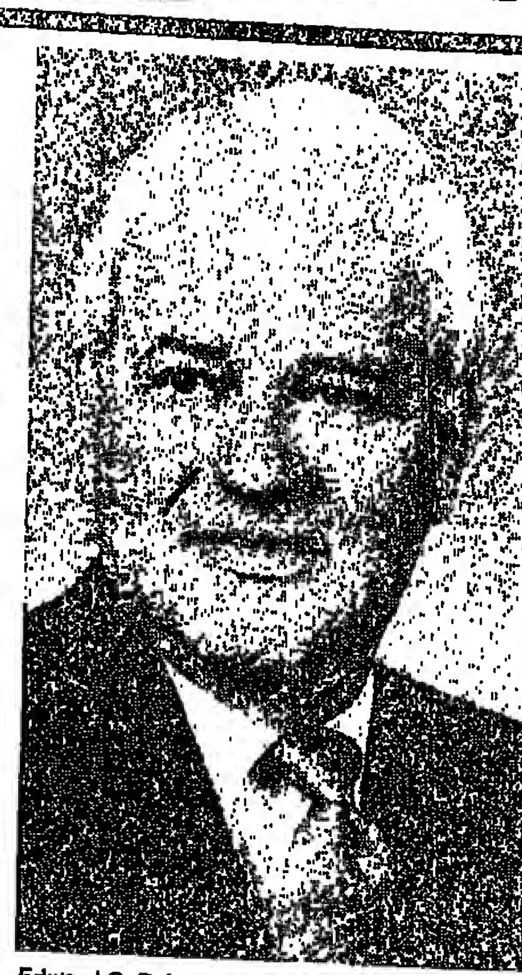
Air Products & Chemicals, Inc., has appointed Edward M. Hare manager of market research in its Chemical Group and Dr. John B. Pfeiffer director of research and development in the technical diversification department.

Mr. Hare will have responsibility for directing market studies and business analyses and will take a principal role in the chemicals group's diversification efforts.

Dr. Pfeiffer assumes responsibility for all research and development efforts within the technical diversification department. He has been with Air Products since 1976.

E.M. Hare

J.B. Pfeiffer



Edward O. Baker, who has been appoined vice-president of marketing for Thompson-Hayward Chemical Company. He will be responsible for the company's marketing efforts in the industrial chemical, textile maintenance and pest control divisions.

Nat'l Starch Appoints Manager, Supervisor

National Starch and Chemical Corporation has named Robert L. Brooks III regional sales manager in the Industrial Starch Division and Stephen Graham account supervisor in the Adhesives Division.

Mr. Brooks will have responsibility for the South and West Coast regions. He will remain at the company's Atlanta, Ga. regional office.

Mr. Graham's territory with the Adhesives Division will include metropolitan New York and the New England states. He joined the company in 1980.

R.L. Brooks III

S. Graham

MARY LU HICKEY has been named regional sales manager in the Coatings and Additives Division for Hercules, Inc.'s Midwestern region... JANET E. MANN has been elected general manager of the chelate chemicals management unit at Akzo Chemie America... DONALD E. MCKINNEY has joined Specialty Industrial Products Inc. as director of operations.

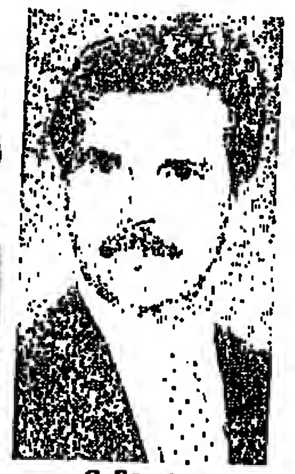
GREGORY RAMSEY has been appointed president of Strategic Analysis, Inc... JOSEPH R. DONOVAN has been named regional sales manager for hydrogen peroxide and the general chemical line in the Chemicals Division of Degussa Corporation... DAVID W. MARTYN has been appointed manager of process development in the research and development department at Horizon Chemical, a division of A.E. Staley Mfg. Co.

ROBERT T. SMITH has been named director of marketing for FMC Corporation's Phosphorous Chemicals Division... A. RICHARD KOETZLE has been appointed vice-president of sales and marketing at Chemical Resources, Ltd... DR. HAGEN B. SCHULTES has been elected president of Baymag Plant, Alberta, Canada.

M.L. Hickey

J. E. Mann

D. E. McKinnoy



G. Ramsey

CRAIG A. ROSENOW has been named manager of engineering in Unocal Corporation's petrochemical group, KENNETH S. WILDER has been named plant manager for the petrochemical group's Conshohocken, Pa. distribution center, DARYL W. DIERWECHTER has been named supervisor of environmental affairs for the petrochemical group and SERGIO O. LEONE has been appointed senior plant manager of the group's Carteret, N.J., distribution center.

R.N. WALLACE has been named district manager of the Rocky Mountain area at Betz Laboratories... BRIAN C. LIM has been appointed manager of environmental services for H.B. Fuller Company of St. Paul, Minn... D. J. BOLGER has been named vice-president of planning and supply for Mobil Chemical Company.

Monsanto Agricultural Company has appointed ROBERT L. HARNESS vice-president for environmental and public affairs, ROBERT W. REYNOLDS vice-president for North America and HENDRIK A. VERFAILLIE vice-president for commercial development.

J.R. Donovan

D.W. Martyn

TERRANCE R. WEAVER has been appointed business manager of light oils for Amoco Oil Company... RICHARD L. MCNEEL has been appointed vice-president of business ventures in the Far East for Amoco Chemicals Company... WALTER L. KREBS has been elected senior vice-president and treasurer of the DuBois Company, the corporate headquarters for Chemed Corporation's DuBois and Fabrilife businesses.

R.T. Smith

A.R. Koetzle

LEONARD M. LEWANDOWSKI has been appoined product manager of amino acids and new products for the Chemicals Division of Degussa Corporation and JOHN LEWISON has been appointed manager of regulatory affairs for Degussa.

BUSINESS BRIEFS BUSINESS BRIEFS

BETZ PAPERCHEM INC., Jacksonville, Fla. has introduced a specially formulated ... of corrosion inhibitors designed to re... corrosion and deposition on bronze ... rolls and bronze suction press rolls. ... product contains an inhibitor that pro... a protective film on the surface of ... rolls in industrial pulp, paper and paperboard applications, Betz says.

DOW CHEMICAL COMPANY says new research findings indicate that its "Dowanol" ... glycol ether acetate is an effective and ...-cost solvent substitute in acrylic polymerizations reacting at atmospheric pressure. The findings show that increasing the level of initiator produces polymers with the desired low molecular weights and viscosity, according to Dow.

GINER INC., Waltham, Mass., says it has developed a new line of electrodes for a variety of electrochemical applications, including fuel cells, oxygen generators, electro-organic synthesis, gas sensors and alkaline metal-air batteries. The electrodes feature a choice of support materials that benefit the user by being lightweight and flexible, Giner says.

LONZA Inc. has reintroduced "Hyamine" 10-X USP in the US and abroad. The CTFA designation for the product is methyl benzethonium chloride. The crystalline quaternary germicide/preservative is used primarily in personal care applications. It was previously available from Rohm and Haas Company.

MCINTYRE CHEMICAL, Chicago, Ill. has introduced a new conditioner concentrate, called "Mackadet" CBC. The product is supplied in flake form. According to the company, a conditioner with either a lotion or cream consistency can be achieved at levels between 4 and 6 percent.

NATIONAL STARCH & CHEMICAL Corporation has added "Dur-O-SET" C335, a high-viscosity polyvinyl acetate emulsion, to the line of continuous process polymers manufactured by its Resins & Specialty Chemicals Division. The products are designed for adhesive manufacturing.

PETROLITE CORPORATION has introduced a multifunctional gasoline additive that provides significantly improved detergency for port-fuel-injected engines. The product, "Tolad" MFA-10, proved effective in an extended fleet test conducted by an independent testing laboratory, according to Petrolite.

WITCO CORPORATION has introduced a new water-based flame retardant designed to minimize the chance of corrosion on production equipment during usage. The "Fyarestor" flame retardant is the latest addition to Witco's line of "Pearsall" flame retardants used in latex systems for fabric and non-woven applications.